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Vol. LXXXII, No. 15 APRIL 15, 1926 Per annum, $4.00 Per copy, 10 cents

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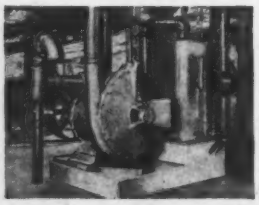

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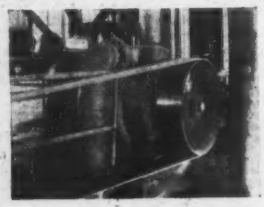

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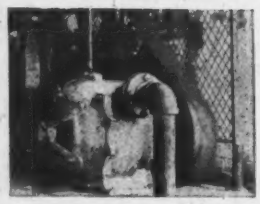

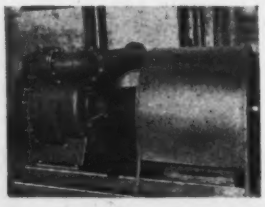

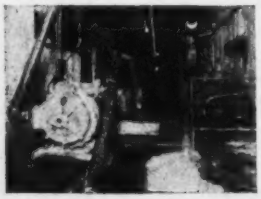

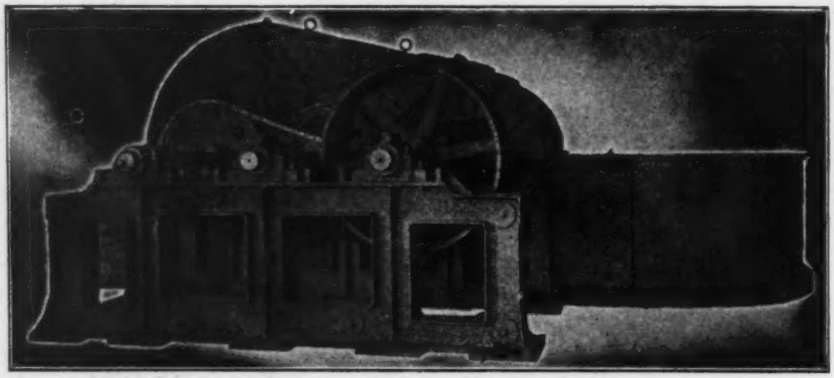

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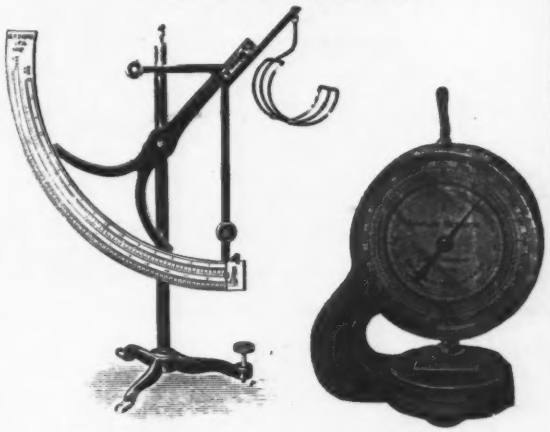

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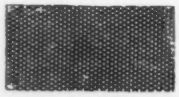

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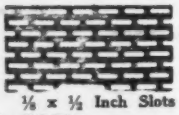

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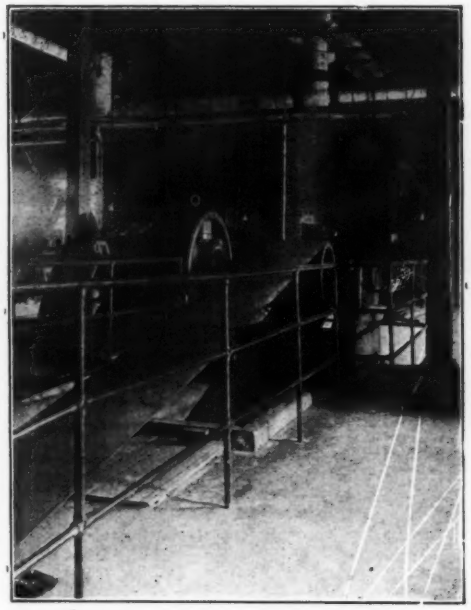

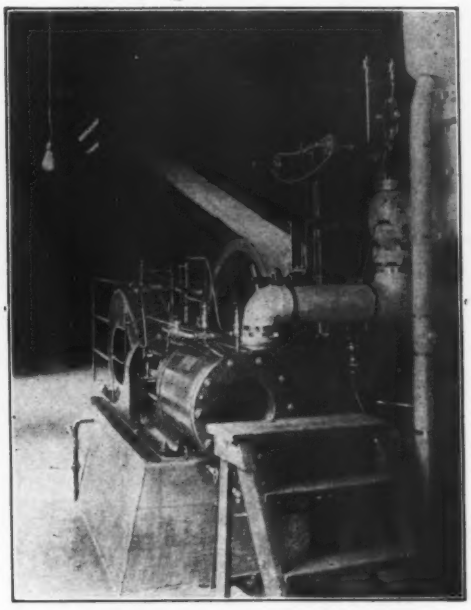

At left: "U. S." Rainbow Belt, 30" by 6 ply, 112 ft. long, delivering 250 H. P. to generator operating at a speed of 500 R.P.M. Drive pulley 92" by 32", driven pulley 32" x 32". At right: "U. S." Rainbow Belt, 16" by 6 ply, 100 ft. long, delivering 65 H.P. from engine operating at a speed of 177 R.P.M. Drive pulley 60" x 18", driven pulley 48" x 18".

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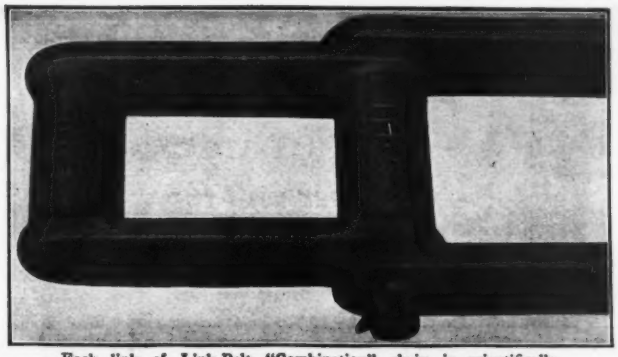

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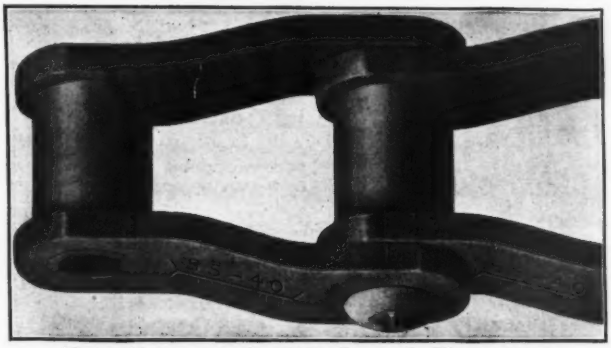

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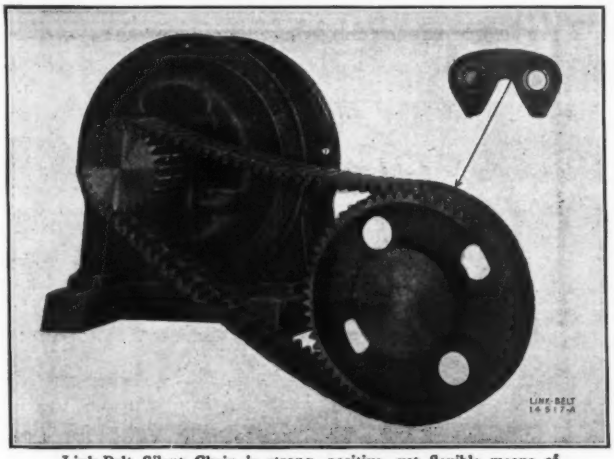

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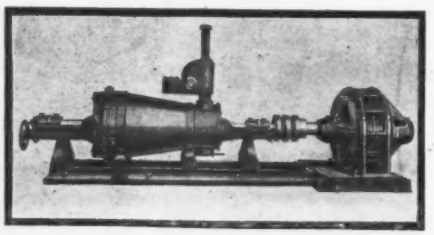

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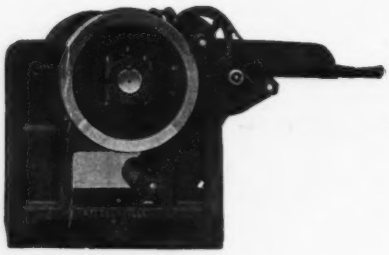

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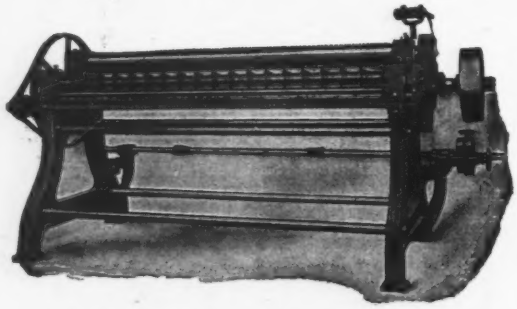

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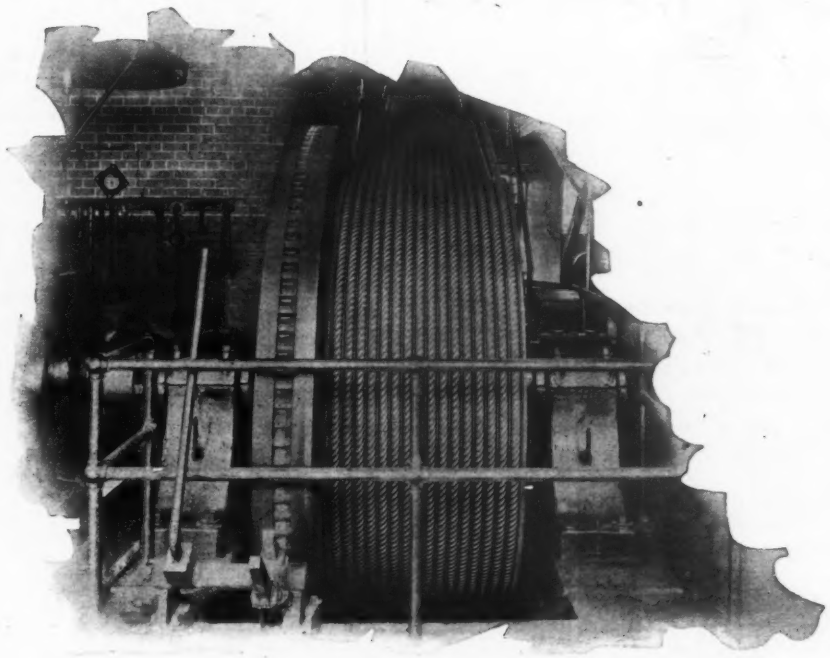

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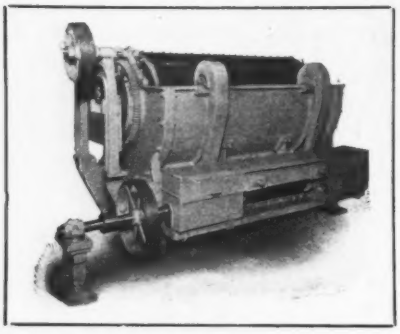

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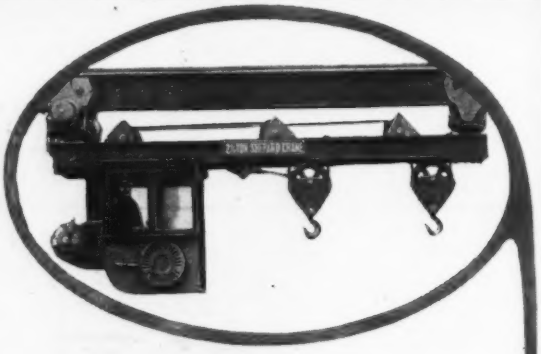

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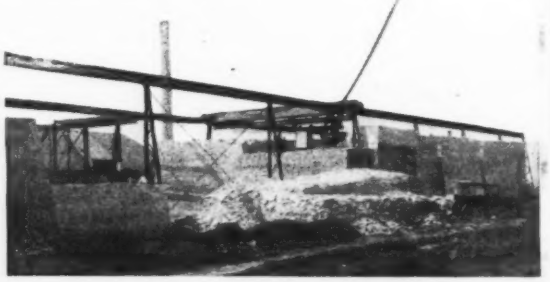

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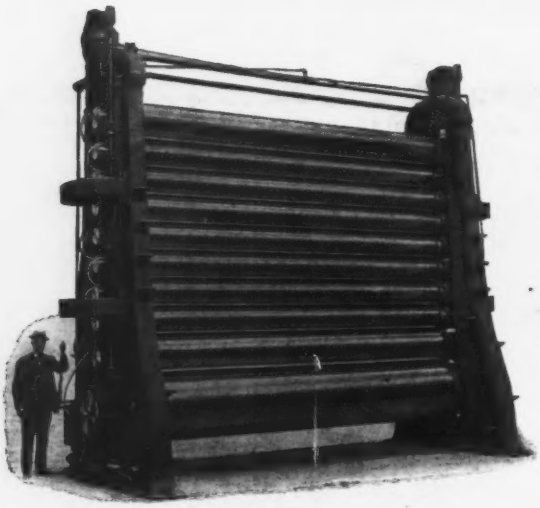

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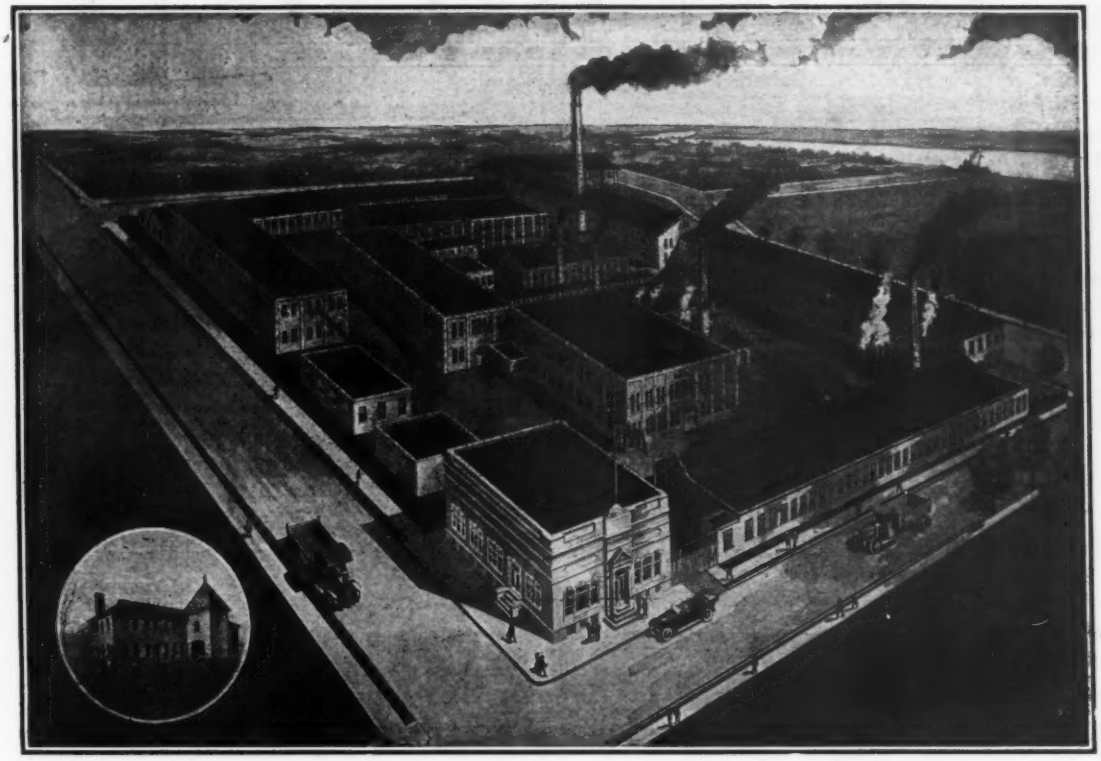

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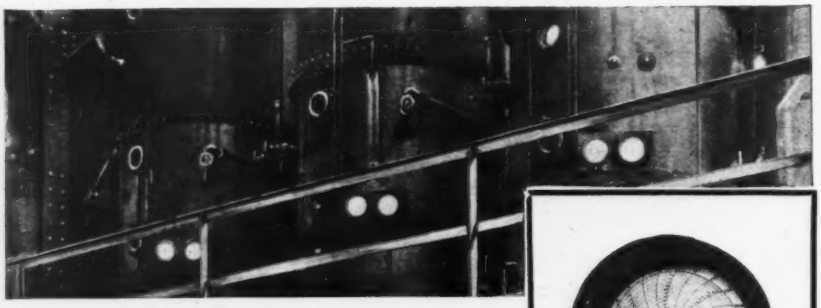

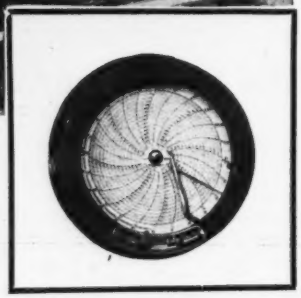

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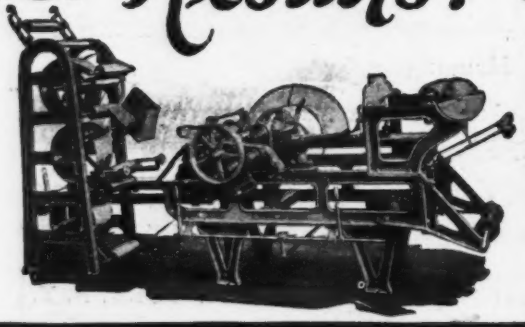

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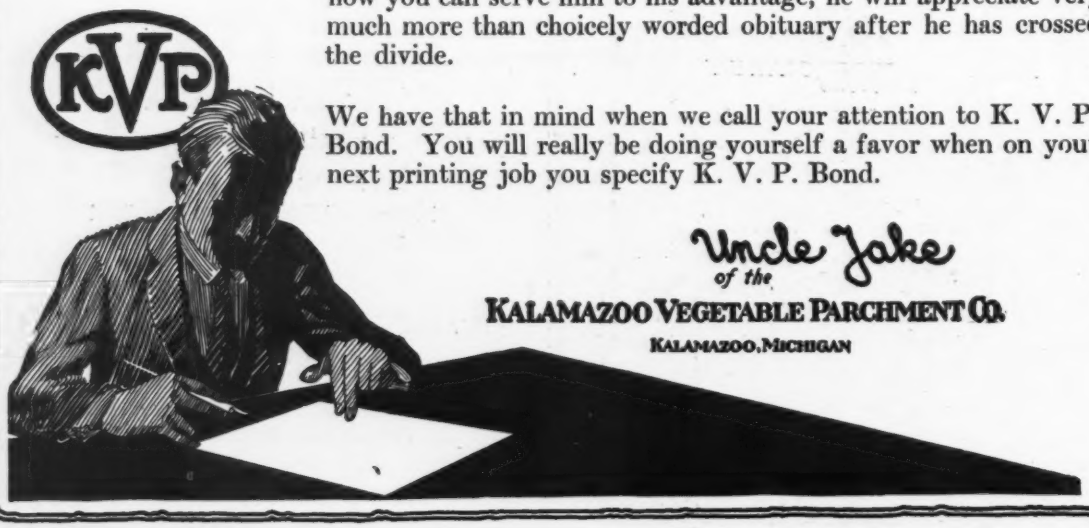

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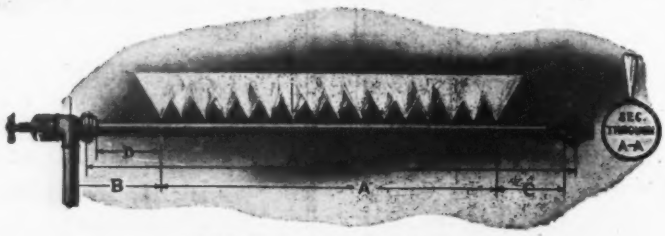

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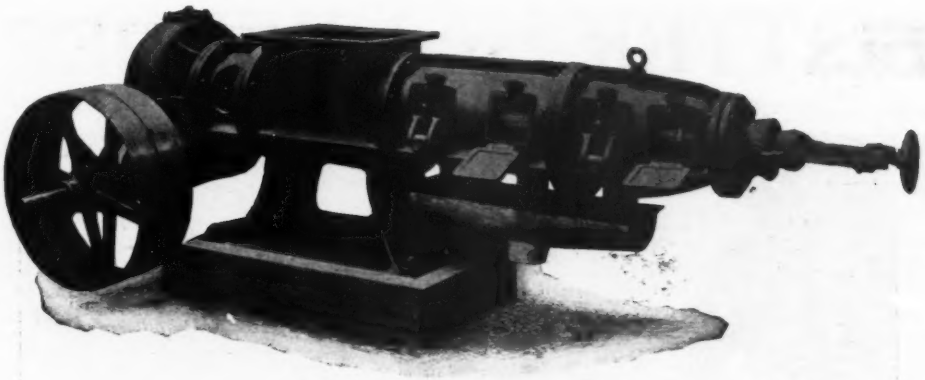

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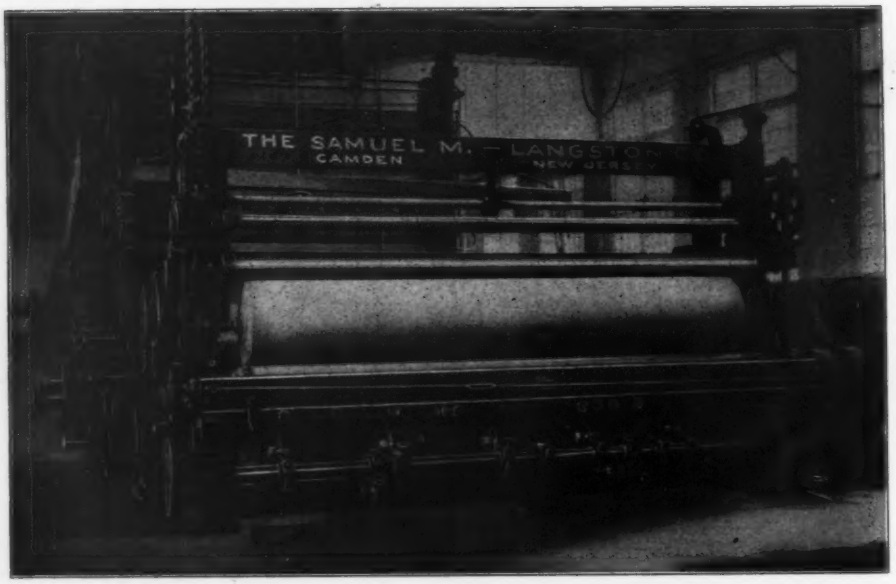

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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-FOURTH YEAR

Published Every Thursday by the

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Executive and Editorial Offices: 10 East 39th Street, New York

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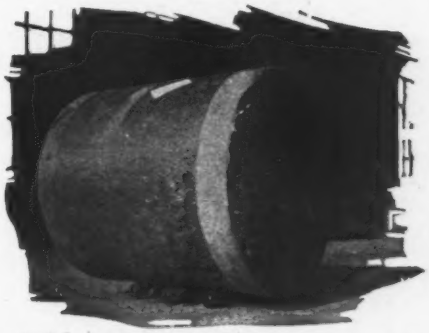

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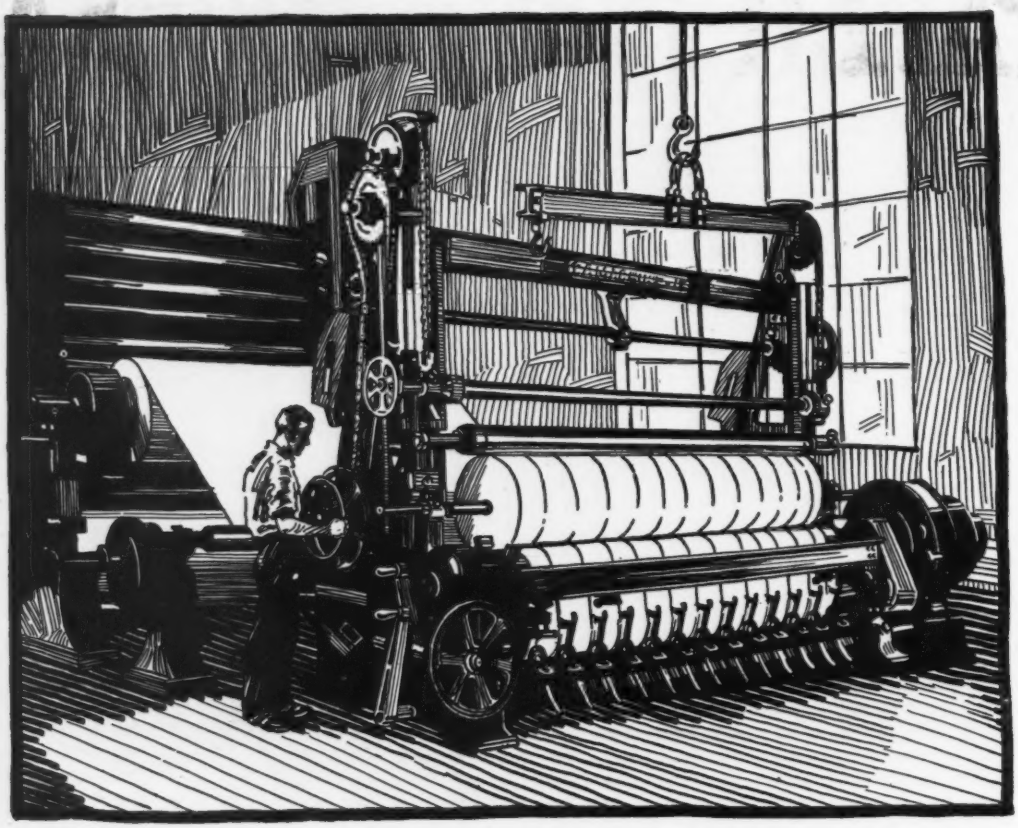

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With Which Is Combined

PAPER

The Magazine of the Paper Industry

Vol. LXXXII, No. 15 Thursday, April 15, 1926

News Print Production in March Makes Record

Mills in the United States and Canada Made 300,303 Tons During the Month—U. S. Mills Produced 12 Per Cent More in First Three Months of 1926 Than in Same Period in the Preceding Year and Canadian Mills Produced 18 Per Cent More Than in First Three Months of 1925

News print production on the North American continent according to the News Print Service Bureau made a new record in March.

Production in the United States during March, 1926, amounted to 145,910 tons and shipments to 142,666 tons. Production in Canada amounted to 154,093 tons and shipments to 153,157 tons, making a total United States and Canadian production of 300,003 tons and shipments of 295,823 tons. There were also 14,341 tons of news print made in Newfoundland with 1160 tons made in Mexico so that the total North American production in March, 1926, was 315,504 tons. The news print mills also made 1311 tons of hanging paper in March, 430 tons of which were made in Canada.

During March the United States mills operated at 95.0 per cent of rated capacity and the Canadian mills at 96.4 per cent.

The United States mills made 12 per cent more in the first three months of 1926 than in the same period of 1925 and the Canadian mills made 18 per cent more than in the first three months of 1925.

The combined production of the United States and Canadian mills in the first three months of 1926 was 15 per cent more than in the same period of 1925.

Stocks of news print paper at United States mills totaled 18,352 tons at the end of March and at Canadian mills 14,800 tons, making a combined total of 33,152 tons which was equivalent to 2.9 days' average production.

Forest Problems Discussed by Dr. Baker

POUGHKEEPSIE, April 13, 1926.—With less than 2 per cent of the original virgin forest of New York remaining, and with 10,000,000 acres of practically idle forest land in the state, the question as to where New York's industries are going with the final disappearance of her forests, was discussed by Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, at a joint dinner of the Service Clubs of Poughkeepsie tonight. Dr. Baker said in part:

"New York in 1890 produced more than 4,000,000,000 board feet of lumber and ranked first among the lumber producing states of the Union. In 1922 the state produced only a little more than 220,000,000 board feet and ranked 23rd in lumber production. The state now imports more than 80 per cent of her wood needs, paying a premium of over $20,000,000 a year in freight on wood which the state could be producing from its abandoned farm lands and other forest lands," asserted Dr. Baker, himself a forester and formerly in charge of Forestry Departments at the Iowa State and Penn State Colleges, and Dean of the New York State College of Forestry at Syracuse University.

"Forestry, like agriculture, is an economic problem and will be practiced only as it pays to produce wood as a crop from the soil. For years forestry has been in a sentimental stage but now with the cost of a cord of pulpwood exceeding the cost of production of that cord we have reached the period of economic development, and we can afford to grow wood as a crop. Before forestry can become a great industry in the state, however, the people must awaken to the fact that the forests must be effectively protected from fire and put under practical business management.

"It is time that New York faces squarely the question of idle and unproductive land as over against increasing taxation and increasing cost of government. An idle acre is as unproductive as an idle man. Why leave idle an empire of forest land in the state capable of contributing largely to the support of the state, and go deeper each year into the pockets of the citizens for taxes? The total cost of state government in New York increased from $53,,828,584 in 1914 to $162,156,798 in 1924. The general property taxes levied in the state by all local governments increased from $22.50 per capita in 1912 to $44.33 in 1924. The amount of real property exempt from taxation almost doubled between 1914 and 1924.

"It is good sound business for the state to expect its forest lands, capable of being made productive, to give a return to the state comparable with the return received from agricultural lands. Every acre in New York should be utilized to the financial profit of its owner, whether an individual, the community, or the state as a whole."

Paper Advisory Committee to Meet

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 14, 1926.—Secretary of Agriculture Jardine has called a meeting of the Advisory Committee of the paper industry for the Department of Agriculture to be held on April 29. This will follow the meeting on the 28th of the National Wood Utilization Committee which was called by Secretary Hoover.

I. P. Co. Extending Operations in Canada

Purchase Is Reported From Ottawa of Hull Electric Railway and Several Power Developments —Royal Securities Corp. Offers $1,500,000 First Mortgage 6½ Per Cent Gold Bonds of the Manitoba Paper Co., Ltd.—"Save the Forest Week" April 18-24

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., April 12, 1926.—The International Paper Company is rapidly extending its operations in Canada. It is announced from Ottawa that last week's purchase of large additional timber areas in Canada has been followed by the purchase of the Hull Electric Company from the Canadian Pacific Railway for $4,750,000. The Hull Electric Railway runs from Ottawa to Aylmer, a distance of nine miles, connecting the city with the Connaught Racing Park and several golf and country clubs. The purchase also includes the water power development at Deschene Rapids on the Ottawa River above Hull as well as a power development of the Hull Electric at Paugan Falls on the Gatineau River. It is understood that the International Paper Company intends to extend the railway to its power plant at Chelsea, where it is erecting paper mills.

Shawinigan Secures Power from Duke-Price

The Shawinigan Water and Power Company has completed arrangements with the Duke-Price Company for the supply of 100,000 h.p., which will be transmitted to Quebec and vicinity to meet the requirements, particularly those of two large pulp and paper mills which are to be erected, one at Cap Rouge, and the other at Limoilu. Though the report is still current that the Shawinigan has taken over part of the control of the Grande Descharge huge power development, it is said on the other hand that the negotiations as far as this transaction is concerned have not been completed yet but that there is good basis to the original report. The price at which the power will be supplied to the Shawinigan cannot be ascertained here but it is said to be very favorable.

Manitoba Paper Bond Offering

The Royal Securities Corporation and Nesbitt Thompson, of Montreal, announce the offering of $1,500,000 first mortgage 6½ per cent serial gold bonds of the Manitoba Paper Company, Ltd. An offering of $2,500,000 is also being made in the United States. The Manitoba Paper Company is now erecting a news print mill in the Lake Winnipeg district, and has been granted the right to select 1,798 square miles of timber limits in that section of Manitoba. The company is owned by the Spanish River and Abitibi Companies and by financial interests associated with them. The mill being erected will have a rated capacity of 250 tons of news print per day, and the first unit will be in operation in December, 1926. The plant has been designed by George F. Hardy, of New York. The entire production of the mill will be marketed under contract of sale by the G. H. Mead Company, of Dayton, Ohio, which is the selling agent of the Spanish River and Abitibi Companies.

George H. Mead, who is president of the G. H. Mead Company and of Spanish River Pulp and Paper Mills, is a director of Manitoba Paper Company. Other influential figures on the board of the new company are W. N. Hurlbut (president), Col. C. H. L. Jones, P. B. Wilson and George R. Gray, all of the Spanish River Company; Alexander Smith, president of the Abitibi Company, L. R. Wilson, also of Abitibi, and J. D. McArthur and Travers Sweatman, K.C., of Winnipeg.

"Save the Forest" Week

By proclamation, the week commencing on April 18 and ending April 24, has been appointed as "Save the Forest Week."

The proclamation states that "the tremendous economic loss through forest fires continues year by year without appreciable diminution; and Canada's future prosperity is seriously menaced by these recurrent holocausts."

"The experience of all forest authorities in Canada," the proclamation proceeds, "has abundantly demonstrated that the forest fire problem can be solved only with the full sympathy, assistance and active support of all the people, practically expressed by increased individual care with fire in the woods, and an insistent public demand for proper precaution against fire on the part of all workers or travelers in or adjacent to the forest."

Disposition of American Writing Ohio Mills

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 13, 1926.—Since the sale of the American Writing Paper Company's Miami Valley mills under the $12,000,000 foreclosure suit of the Old Colony Trust Company of Boston, Mass., there has been speculation as to the nature of the enterprises to take the place of the old plants.

The sale was conducted at the door of the Warren county courthouse as the mills are located at Franklin and Excello. All of the real estate and buildings of the two paper plants were included in the sale. Sidney L. Willson, as special master commissioner, filed his report in the United States Court at Cincinnati.

The report showed the realty and buildings were sold to Thomas A. Jones, of Excello, whose bid of $214,500 was the highest and best submitted. The price was in reality the upset figures set by the court in the decree of sale.

Mr. Jones also purchased the stock of the Franklin Hydraulic Company, owned by the American Writing Paper Company, for $15,000.

Formal confirmation of the sales was made by the court and Mr. Jones proceeded to dispose of part of his holdings.

The Harding mills at Franklin passed into the hands of the Maxwell Paper Company, headed by Maxwell Howard of this city, who is president of the Aetna Paper Company, Dayton, and the Howard Paper Company, Urbana, Ohio.

The Excello mill, which long was conducted by the Hardings, was retained by Mr. Jones, who is making improvements of a substantial character. The company is known as the Middletown Paper Company and it operates the Excello plant.

This week it was announced that Howard Jones, football coach of the University of California, and formerly Iowa mentor, has been made vice-president of the company. The news was followed by the announcement that Mr. Jones is on his honeymoon, having recently been wedded to Miss Jane Deane of Los Angeles. His Miami valley friends are pleased to learn that he will be identified with the industry.

Some years ago, the Miami Valley football fans followed the Yale star's work with keen interest and they never failed to keep in close touch with his athletic activities out West.

Severe Winter Handicaps Pulp Exports

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 14, 1926.—The past winter is reported to have been the most severe in Finland in thirty years, according to Assistant Trade Commissioner Kelich, who further states that inability to cope with the ice situation has resulted in pulp and paper exporters applying to the government for a reduction in railway freights to permit shipping via Harvik, Norway.

MATHIESON Chemicals

Our Complete Chlorine Service

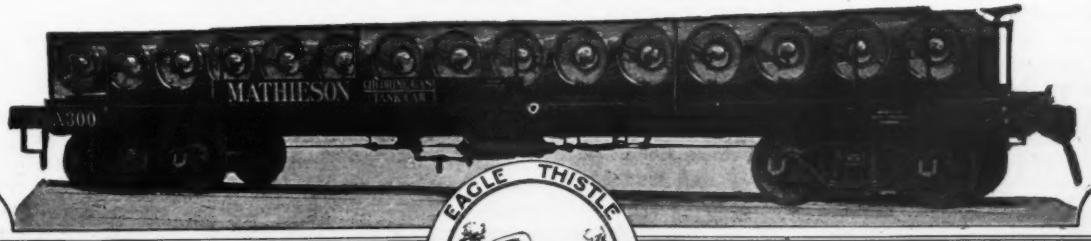
A DECISION of far-reaching benefit to the chlorine industry was the final ruling of the Interstate Commerce Commission on the Mathieson Multiple-Unit Tank Car.

This ruling has placed the Multiple-Unit Car permanently on a tank-car basis and has thus made available to manufacturers of Liquid Chlorine and other liquefied gases a flexible and economical means of maintaining shipping and storage reserves. It will permit the general extension of our practice of accurate weighing and frequent inspection which has proven so advantageous to the consumer; it assures the carriers of two methods of transporting liquefied gases in tank cars which may be expected to increase this traffic; and it has made liquefied chlorine gas available to the consumer in containers of four sizes, according to his requirements.

To-day the Mathieson Company owns and operates 120 of the special tank-cars required for transporting Liquid Chlorine, 75 of the multiple-unit type and 45 of the Class V or single-unit type, in addition to its equipment of many thousands of the two sizes of chlorine cylinders.

We thus offer, by reason of the Company's foresight and present resources, a complete service on Liquid Chlorine adapted to the consumer's varying needs and to all conditions of supply and demand.

The MATHIESON ALKALI WORKS Inc.
250 PARK AVE. NEW YORK CITY
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE



EAGLE THISTLE PRODUCTS

Deal Direct with the Manufacturer

Caustic Soda - Liquid Chlorine
Bicarbonate of Soda
Anhydrous Ammonia
Soda Ash - Bleaching Powder
Modified Virginia Soda
Aqua Ammonia

Philadelphia Paper Men Hear Sir Chas. Higham

Wrapping Paper Merchants To Meet With Smaller Jobbers—S. Walter, Inc., Appointed Exclusive Distributor in Philadelphia Territory for Doubletowel—National Paper Box Manufacturers Association To Hold Convention May 25-28—McDowell Mill Improvements

PHILADELPHIA, Pa., April 12, 1926.—In place of the customary meeting the members of the Philadelphia Paper Trade Association adjourned the April gathering of the Fine Paper Division so that the dealers might be given an opportunity of hearing the noted English advertising expert, Sir Charles Higham, who was scheduled to speak at the Poor Richard Club last Thursday. The paper men enjoyed the talk given by the noted Englishman who stressed the importance of co-operation among the various industries in this country with their competitors in America and on the opposite side of the seas and who told of the tea industry as it has been developed by the natives of Great Britain and her colonies in the Indian Provinces.

It was decided that the paper trade meetings which heretofore have been held at the Bourse Restaurant on Thursdays should be advanced to early in the week and in the future the weekly sessions of alternating fine and wrapping paper divisions are to be held on Tuesday at a place not yet decided upon.

Wrapping Paper Men To Meet

Another of those fellowship gatherings which just a few months ago brought together the larger paper dealers and their brethren in the jobbing trade on smaller scale, has been arranged for the coming Thursday. The announcement of the place and other details will be made in the early part of the week. The first of these meetings between the larger coarse dealers and those who conduct a paper jobbing business of a limited type along the same lines, was so successful in bringing about a better understanding between the two groups that a request was made for another at an early date and so the coarse paper division of the Philadelphia Paper Trade Association set aside Thursday of this week for the next assembly of these trade associates.

Exclusive Agents For Doubletowel

The exclusive agency for the Philadelphia territory distribution of the Doubletowel, the only kraft toweling on the market and manufactured under patented rights by the Bay West Paper Company, Green Bay, Wis., has been secured by the firm of S. Walter, Inc., 144 N. 5th street, of which Simon Walter, one of the prominent leaders of the City Council, is president. This new idea in the doubletowel release has been but recently introduced and already has been most successfully launched. The innovation of a kraft toweling in the Doubletowel brand originated by the Bay West Company, has many qualities which commend the newest comer to the converted paper products of the coarse paper group. These kraft towelings have excellent absorbing qualities and are softer and more durable than the ordinary makes. Its immediate success elsewhere since its introduction has been duplicated here under the Walter company distribution and where it was added to the lines within recent days. A corp of salesmen has been working on the new Doubletowel concentrating on its introduction in the Philadelphia territory. The demand created by the drive on the new line necessitates the stocking of large quantities of the brand in the local warehouses to meet the urgent needs of the customers.

National Paper Box Men Meet

A new idea in the conduct of conventions of national scope will be introduced when the National Paper Box Manufacturers Association meets here in annual convention from May 25 to 28, with headquarters at the Hotel Benjamin Franklin. This innovation will be in the plans to confine the business meetings and discussions to half day sessions so that the visiting box makers and associates in the industry will have an opportunity of viewing the machinery exhibits and other interesting places in the city and surrounding territory and be free to meet their fellows in the industry in the closer contact of informal sociability afforded by the open afternoons. National headquarters here, recently removed to the 8th floor of the Liberty Title and Trust Building, Broad and Arch streets, is prepared to welcome more than 1,000 visiting box makers and trade associates during the coming Convention. It is expected that this gathering will be the most representative assembly of the box making trade ever held since the institution of the annual convention more than eight years ago. There will be a four day program replete with interesting business discussions led by prominent figures in the industry and outside professions, who will feature such topics as production, sales, management, finance and other educational subjects for the advancement of the industry. Each day six successful box manufacturers will go over various problems which have confronted them in their particular fields and how these were solved. The sessions begin at 9:30 and terminate at 1 p. m. so that the afternoons are left to the disposal of the attendants, who will be free to attend the exhibits of supplies and machinery to the assembled at the Commercial Museum, 34th street near Spruce. There will be features in these exhibits by several paper houses which cater to the box making industry and will be supplemented by other displays at the Hotel Benjamin Franklin. The evenings will be given over to social diversions with the box manufacturers as hosts one evening and the associates in the Supply Branch of the Association entertaining on another evening to be set aside for their program of elaborate entertainment. On Thursday evening, the National Association banquet will be held. At the closing of Friday's session the visitors will enjoy a trip to Atlantic City for the week end. The Philadelphia Entertainment Committee is providing for the entertainment of golf enthusiasts among the conventionites and is to award a cup in the contests on the local links held in the course of the Convention.

Congratulations For J. L. N. Smythe

From far distant points the echo of the hearty congratulations of trade associates came to the Philadelphia headquarters of the J. L. N. Smythe Company, 30-34 S. 6th street, for the genial veteran founder of the Company, J. L. Nevill Smythe on his 72nd birthday anniversary. While the organization of the Smythe Company commemorated the day in floral tribute and adornment of his desk those far away associates sent messages of cheer and hearty wishes for continued good health and happiness in the years to come. In the dual festivity of Easter Monday and his natal day April 5th was passed by Mr. Smythe among his associates at his office and with the congratulatory telegrams, letters and greetings cards piling on his desk throughout the day a cheerful recollection of old friends garnered during the many years of association with the paper trade was vividly presented in the testimonials of good wishes. Among the many messages received during the day were those from the Philadelphia Paper Trade Association as a body. A. B. Sherrill, of Riegel & Co., Inc., Charles McDowell, of the McDowell Paper Mills, Morris Gintzler of the Pulp and Paper Trading Company, and others in the industry. From R. C. Haberskern, Purchasing Agent for the R. J. Reynolds Tobacco Company, Winston-Salem, N. Carolina, a personal friend of Mr. Smythe, there came a letter of good wishes inspired by the notice of the pending birthday anniversary which the Tobacco Corporation's associate read in the PAPER

Performance

We have purposely kept our claims for the Bird Pulp Screen conservative.

Now, reports from users enable us to submit convincing evidence that the Bird Pulp Screen produces a tremendous capacity of first quality stock at a saving in power which alone pays for the screen.

For example:

In one mill producing kraft pulp from southern pine, one of the most difficult stocks to screen, *one* Bird Pulp Screen takes the place of *twelve* old type screens. It handles the entire output of the mill, 60 to 65 tons per day and the management states that the quality is as good, or better, than before. The screen room hands are delighted with it.

In another mill two Bird Pulp Screens and one tailings screen are doing the work formerly done by six first screens and three tailings screens. They are handling 120 to 130 tons per day and power consumption is less than 1 H.P. per ton.

We will gladly give you the names of these users and tell you of other performance records equally striking. May we hear from you?

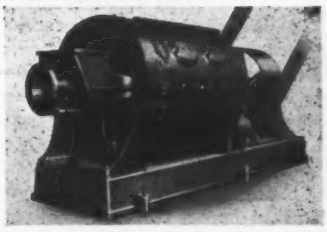
BIRD MACHINE COMPANY

SOUTH WALPOLE MASSACHUSETTS

9125

BIRD MACHINERY

The BIRD PULP SCREEN



TRADE JOURNAL. When Mr. Smythe arrived at his desk there awaited him a huge bouquet of American Beauties accompanied by an artistically designed engraved testimonial with an original poem bearing the sentiments of the organization of the firm and composed by Miss Tillie Gamble, assistant bookkeeper, and inscribed by all the members of the forces and the firm. In the evening there was a home celebration when the members of the family paid tribute at the dining table in a happy reunion.

McDowell Paper Mills Improvements

More improvements have been provided for in the plant of the McDowell Paper Mills, in the Manayunk District of Philadelphia, in order to arrange for adequate facilities to take care of the growing needs in the expansion of its business. The McDowell Mills have within recent years been entirely renovated and modernized to meet the up-to-date methods of paper manufacture and to provide for the introduction of new lines of products in grease proof and glassine papers which have been added to the long established production in fancy wrappings and colored specialties along this line which have been manufactured throughout the long years of the history of the business now beyond the century mark. While the McDowell Mills have for more than a hundred years been identified with the manufacture of paper they now are completely modernized with every mechanical service which modern ingenuity has devised for the manufacture of the products featured by the company. Recently the plant was entirely electrified so that it may be run by either electricity or water power from the Schuylkill River. Other improvements were the installation of three embossing units for the glassine papers including spider web, piquet, and herringbone designs; the extension of the paper making machine and the rebuilding of the concrete foundations; the erection of steel pulp storage house for the storing of imported pulp now extensively employed in production and other improvements in fire facilities and building construction. The very newest of these modernizing influences will be the lengthening of the wires on the Fourdrinier paper machine so as to provide for an additional capacity of 8000 pounds per day in production and the installation of additional General Electric Company motors. These innovations will be completed by June 1 so that the MacDowell Mills will be able to step on the gears of modern paper making machines ready to speed up with the progress of the industry of today with greatly improved service to the trade and its patrons for both the grease proof and glassine lines and its long enjoyed business of fancy wrapping paper manufacturers. Charles McDowell who has been wintering in the Florida climes adjacent to Port Sewell, is back at his desk again and now ready to go ahead with his plans of improving the units.

Fine Paper Standards for Cherry River Co.

With its innovations in the way of improved methods and facilities of operations, the Cherry River Paper Company, with local headquarters in the Pennsylvania Building, is now perfected in the fine paper standards of production which have been adopted in substitute of the old coarse paper standard. This fine paper standard has been facilitated through the re..ements in the process of all bleached and unbleached production at its mills in Richwood, Va., which provide for more care in the run, improved beating, cooking, running and finishing of the paper manufacture in its plant. Ever since the first of the year the Cherry River Paper Company has been running its mill on converting specialties, such as tag, pin tickets, folders, index stocks, and like products, used for paper converting purposes. Within recent times the mills at Richwood have been equipped to produce bleached products in sulphite papers as well as the old time unbleached lines. With an excellent pulp supply to be garnered from its 325,000 acres of owned woodlands on its property at Richwood, the Cherry River company is assured of ample pulp of the first quality. It also has other natural resources in the fine grade of bituminous, smokeless, grade of coal underlying the vast forest reservation which provide for fuel and ample water supply from the unpolluted mountain streams which flow over this extensive acreage. All these factors enable the mills to produce a clean and high grade quality of bleached and unbleached papers in the fine and coarse grades of sulphites.

Enterprise Paper Co. Adds Summer Specialties

Having established a specialized department for the distribution of summer requirements for the ice cream and soda trade and picnic and outing paper wares the Enterprise Paper Company, 3rd and Callowhill streets, is now elaborating on its lines in preparation for the coming seasonal demands. The firm will materially expand its lines of the ice cream boxes manufactured by the Bloomer Brothers, Newark, N. J.; wax paper and drinking cups by various manufacturers; the Vortex Soda Fountain specialties manufactured by the Vortex Cup Company of Chicago; Tulip Cups, made by the Tulip Cup Company, New York; Servadish lines produced by the Servadish Company, New York; and an extensive line of picnic packages put out by the Indiana Fibre Products Company, Marion, Ind., for which it is exclusive Eastern distributor. The Enterprise Company has become sole distributor for the grease proof paper manufactured by the Oregon Pulp and Paper Company, Salem, Ore., in Eastern Pennsylvania territory.

Atlas Paper Co. Expands

Having heretofore dealt in a specialized line of paper napkins and like converted products the Atlas Paper Company, 253 N. 2nd street, now has extended its business to include the stocking of fibre containers. Jacob Zacker, head of the firm, is now representing a manufacturer of these water proof containers for liquids in all sizes. The containers are made of paper fibre with metal tops and bottoms and are adapted for hot and cold liquids. They are stocked in the sizes from the half pints to the two quarts. The firm has added to its sales organization Albert Martin now being associated with the staff as North Philadelphia representative.

Whiting Paper Co. Shows Holiday Papers

The new 1926 line of Christmas papeteries is now on display at the Philadelphia headquarters of the Whiting Paper Company, at 619 Chestnut street, where the newly appointed local manager, D. F. Coots, and his assistant, Joseph Schaller, have arranged a wide display of the new boxed holiday requirements. There are more than 200 additional and entirely new ideas in the Christmas papeteries with a wide range of tints and colors and lined and unlined envelopes, of unique designs in tissues. While the holiday papeteries now are being shown they will not be shipped from the Holyoke manufacturers until August or early September.

White & Wyckoff Displays

Another manufacturer of boxed social requirements now featuring the holiday lines of papeteries is the White and Wyckoff Company through its local branch, 1001 Market street. There are many new ideas in the papeteries for 1926 with variety in choice of box tops and colors in modish shades. The line contains many popular priced papers which may be used for the holidays or for year round stocking. The displays are made in the headquarters in the Vandam Building where a part of the fourth floor has been devoted to the standard 1926 goods in social papers and for the incoming samples of Christmas numbers.

Ingalls & Co. Sell Board Mill

CASTLETON, N. Y., April 12, 1926.—Ingalls & Co., after manufacturing board for more than fifty years, have sold their plant to be used for other purposes, and will discontinue the manufacture of board April 20. They will resume as soon as they can find a convenient location. The concern has a large stock at present to take care of customers' needs.

Established 1886
OUR 40th YEAR

Service

The vision of a greater, more useful, more efficient organization and service is always before us, and we see in the ever-increasing number of our friends a measure of accomplishment that grows from year to year.

We have made SERVICE our watchword and for forty years have been adding to our ability to serve you well.

WOOD PULP

Of Every Description

M. GOTTESMAN & COMPANY

INCORPORATED

18 East 41st Street
New York, N. Y.
U. S. A.

European Offices:
Kungstradgardsgatan 10,
Stockholm, Sweden.

Toronto Paper Demand Considerably Improved

Good Steady Demand for Practically All Varieties With Present Prospects That April Will Be a Record Month—Ground To Be Broken Soon on the New Sixty Ton Sulphite Mill of the Thunder Bay Paper Co. at Port Arthur, Ont.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., April 12, 1926.—With the advent of fine spring weather, business has picked up considerably in the paper line and there is a good steady demand for practically all kinds of paper. It looks as if April might prove to be a record month. There is a very strong call for supercalendered No. 1 book and some of the mills are three months behind in deliveries. The coated paper market continues fair and the wrapping paper trade has been very good during the past few days. Manufacturing stationers are busy meeting spring demand and specialty producers have no cause for complaint at the amount of trade which is coming their way.

In the rag and waste paper market there is a steady call and dealers report that the stocks on hand are rather short. Prices are on a stable basis, although there has been a slight drop in white news blanks and No. 1 mixed papers. In domestic rags quotations have advanced slightly in view of a better demand. Collections of rags and waste papers have been slow during the past fortnight owing to the inclement weather which prevailed up to the early part of last week. Printers have been getting busier in a number of towns and a large amount of spring literature and advertising matter is being issued, which has had a good effect on both the paper situation and the printing trade.

Pulpwood Cut Was Large

The cutting of pulpwood in the Port Arthur district was larger during the past season than was generally supposed and the camps have now all broken up. The spring drives are being watched with interest and if the break-up continues gradual, it is expected that conditions on all the streams will be ideal. The rate of wages for men on the drives will be the same as last year and there is an abundance of labor.

Work on New Sulphite Plant

As soon as the frost is out of the ground work will be begun on the new sixty ton sulphite mill of the Thunder Bay Paper Company at Port Arthur. This company has been making rapid strides during the past few years and will embark into the manufacture of news print. It is expected that the first hundred ton unit of the news plant will be completed and in operation by the end of the present year. The ultimate capacity will eb four hundred tons daily. The company some time ago obtained additional pulpwood concessions from the Ontario government and is entering upon a big program of expansion.

Hearing Paper Talk Over Radio

The Canadian Manufacturers Association has adopted the plan of having talks on the leading industries broadcast over the radio and the paper interests have not been neglected. J. M. McIntosh, secretary of the Ontario Division of the C. M. A., in his remarks to the "tuned-in" audience stated that the ingenuity of Canada was leading the world in paper making and that a capital of $459,000,000 was required to run the pulp and paper industry in the Dominion during the past year.

Kapuskasing Has Building Boom

The lively northern town in Ontario known as Kapuskasing is enjoying a building boom. Construction has been commenced by the Spruce Falls Company on a large addition to the sulphite pulp mill of the company. Morrow & Beatty are the contractors and have completed a number of bunk houses for the accommodation of the men on the work while several temporary structures are being demolished to make room for new buildings and dwellings.

Air Patrol Justified Itself

Hon. James Lyons, former Minister of Lands and Forests in the Ontario government, stated lately that, during the regime of the Drury government, 16,170 square miles of pulp lands had been leased out, which was the largest acreage ever given out in the lease of one government. All that the province had to show for that huge amount of pulp land was two pulp mills and Mr. Lyons added that their agreements looked as if they had been made by the lawyers of the companies instead of the Department of Lands and Forests. Mr. Lyons defended his air patrols in Northern Ontario and admitted that he had put the force into existence against the wishes of those in his department. He claimed that it had saved great loss by fire last year and the aerial patrol has therefore justified itself.

Employees Have Jolly Time

An inaugural dance was given by the employees of the Fort William Paper Company, Fort William, Ont., at which representatives of other mills were in attendance. The event was a distinct success. One feature of the gathering was that the five hundred guests were all given fancy caps made from the paper turned out by the company.

Spanish River Co. Loses Barn

Fire of an unknown origin destroyed one of the large barns of the woods department of the Spanish River Pulp and Paper Mills, located five miles from Sault Ste. Marie. The loss was about four thousand dollars. Some sixteen horses stabled in the building were saved but a considerable quantity of hay and other material was a complete loss.

Will Turn Out Specialties

The Canadian Pulp and Paper Products, Limited, are preparing to enter the manufacturing stage at 49 Simcoe street, Toronto, in the premises occupied by Cameron & Fraser. The company will turn out egg carriers and egg flats. Operations will be conducted at first in an experimental way with old papers as a base and by a special vacuum process. Other lines will be added such as special milk bottles and it is possible that a factory may be put up in Buffalo, N. Y., at a later date.

Notes and Jottings of the Industry

J. B. Wilson, of Sault Ste. Marie, vice president of the Spanish River Pulp and Paper Mills, accompanied by Mrs. Wilson, was in Toronto during the past week on his way to England on a three months trip.

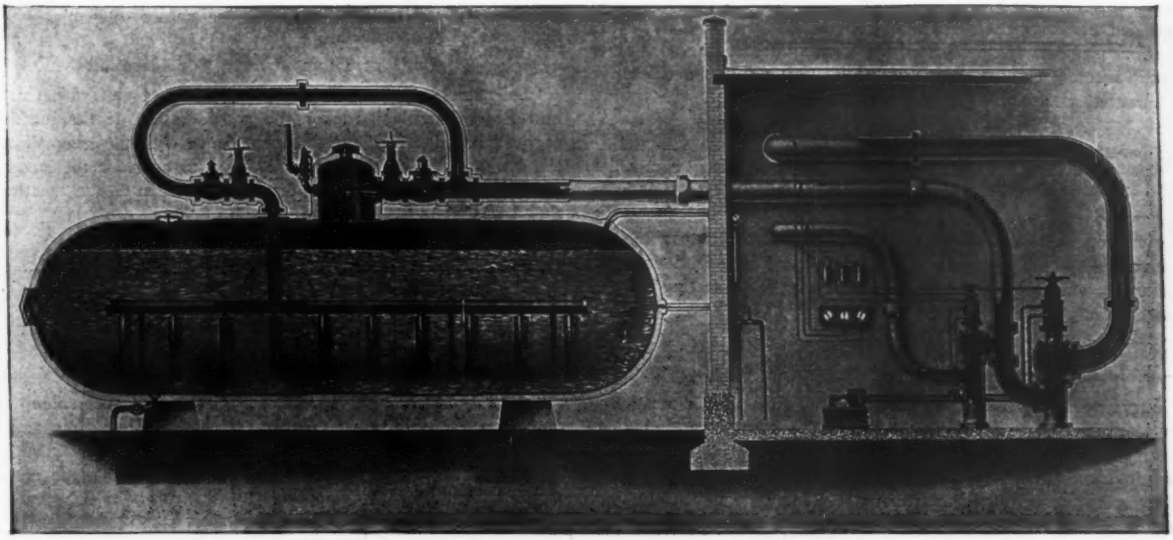
R. I. Finlay, president of United Paper Mills, Toronto, has returned after spending a short holiday in Buffalo, N. Y.

T. A. Weldon, vice president of the Provincial Paper Mills, Toronto, and Charles F. Buss, general superintendent of the plants of the company, who have been spending the past winter at various points in California, have returned home.

W. L. Young of the staff of the Canada Paper Company, Toronto, who has been recovering from a long illness, is once more back at his post. He has been identified with the Canada Paper Company over forty years in an executive capacity.

The United Paper Mills, Toronto, have put on the market a new Canadian made cover paper known as Locarno, which is of floral design, with good folding qualities. It comes in a large number of colors.

Ruths Steam Accumulators



Section of Ruths Steam Accumulator and Steam Switchboard

Advantages of the Ruths System

PERFECT HEAT BALANCE—
By storing excess energy and supplying peak loads.

INCREASED PRODUCTION—
Due to abundant supply of steam.

IMPROVED QUALITY—
Due to constant steam pressures.

INCREASED BOILER CAPACITY—
Because boilers operate continuously at 100% load factor.

FEWER BOILERS—
Because boilers have to supply average steam demand only.

FUEL SAVING—
Due to steady combustion conditions.

RELIABILITY—
Due to centralized steam control and oil pressure operated steam switchboard.

LOW MAINTENANCE COSTS—
Because forcing of boilers is eliminated.

MAXIMUM NON-CONDENSING POWER—
Because of equalized steam flow through turbine.

LOW-PRICED POWER—
Due to constant pressure and superheat.

LABOR SAVING—
Due to automatic and simplified operation.

SMOOTH OPERATION—
Because accumulator renders steam, power and manufacturing departments independent of each other.

COMBUSTION ENGINEERING CORPORATION LIMITED

POWER PLANT EQUIPMENT

STOKERS OF ALL TYPES
PULVERIZED FUEL SYSTEMS
STEAM TURBO-GENERATORS
HIGH SPEED STEAM ENGINES
WATER TUBE BOILERS

AIR PREHEATERS
RADIAL BRICK CHIMNEYS
COAL HANDLING EQUIPMENT
ASH CONVEYORS AND HOPPERS
STEAM PIPING

SUSPENDED FLAT ARCHES
DE-AERATORS
CONDENSERS OF ALL TYPES
OIL BURNING EQUIPMENT
BOILER FEED PUMPS

PULVERIZING AND GRINDING MILLS
RECORDING INSTRUMENTS
INDUCED AND FORCED DRAFT FANS
DIESEL OIL ENGINES
ECONOMIZERS

HEAD OFFICE—TORONTO

VANCOUVER, MONTREAL, WINNIPEG

Paper Board Industries Association Meets

Members of the Paperboard Industries Association met at the Commodore Hotel, New York City, in Group Sessions on Wednesday, March 24, and in Joint Sessions Thursday, March 25. President Fletcher M. Durbin presided at the General Meeting of all members on March 25. Vice-President Walter P. Paepcke presided at the meeting of the Paperboard Group; Mr. Irving Hill, a member of the Executive Committee, at the Container Group meeting and H. C. Stevenson, a member of the Executive Committee, at the Folding Box Group meeting.

Election of New Members

Applications for membership from the following companies were presented and they were unanimously elected. Carthage Paper Board Company, Carthage, N. Y.; Hummel-Ross Fibre Corp., Hopewell, Va.; Northampton Paper Mills, Raubsville, Pa.

Immediately following the meeting, additional applications were submitted, which will be voted upon at the next meeting of the Association.

General Meeting

The program of the general meeting was replete with subjects of interest to the paperboard, container and folding box members. President Durbin reported for the executive committee, including in his report the action or recommendation of the executive committee on financial matters; change in schedule of group and joint meetings; applications for merbership; date and places of next meetings; basis of Association dues, etc.

The Executive Committee appointed H. C. Stevenson, of The Rochester Folding Box Company, as Chairman of a Special Committee to cast the vote of the Association on Referendum No. 48, referring to the Merchant Marine, recently submitted by the Chamber of Commerce of the U. S. A.

General Manager Browder Reports

General Manager G. R. Browder submitted a report describing concisely the major activities of the Association during the past two months. His report made mention of: Attention to Membership List; Inspection Service; Traffic and Classification Matters; Research and Laboratory Reports; Sales Promotion and Publicity; Relations with Department of Commerce; Contact with National Canners' Association and National Wholesale Grocers' Association.

Sales Promotion Committee's Report

An interesting feature of the meeting was the report of the sales promotion committee, which was submitted by Peter C. Brashear, of the Fort Orange Paper Company, a member of the Committee, and by A. W. Luhrs, who is in charge of the field work. Mr. Luhrs reported in detail upon the work of the field staff, describing the progress being made in extending and introducing the use of corrugated and solid fibre shipping containers and folding boxes for packaging and shipping a number of different articles. Members have been furnished with the complete report.

The Sales Promotion Committee's presentation elicited much favorable comment.

Research Subjects

Chairman F. J. Kroess reported for the Research Committee. A detailed report was also submitted by Mr. M. C. Walsh, the Association Fellow at the Mellon Institute of Industrial Research, Pittsburgh. The reports were quite comprehensive, and covered the following projects: 1. Test of boxes made with All-Kraft Facings; 2. Effect of Humidity on Bending Quality of Boxboard; 3. Investigation of a New Impact Tester; 4. Adhesive for Varnished Boards; 5. Adhesive for Aluminum Foil; 6. Cloth Tape Specifications; 7. Butter Taint; 8. Printing Plates; 9. Printing Ink; 10. Foaming Troubles; 11. Material for Corrugated Sheet.

Report on Permanent Dues Basis

A report, with recommendations for changes in the basis of assessing membership dues, submitted by Chairman E. R. Hankins, was duly approved.

Code of Ethics Under Consideration

Chairman H. C. Stevenson of the Committee on Trade Customs and Practices submitted for the consideration of the meeting a suggested Code of Ethics. In accordance with the suggestions of the Committee, the members are asked to consider the suggested Code and to be prepared to discuss it further at the meeting of the Association.

Statistical Presentation

Chairman E. R. Hankins reported for the Statistical Committee. Grafton Whiting, Statistician of the Association, explained in detail a series of charts and summaries of operations in the Paperboard, Container and Folding Box industries.

Economist's Report

Dr. E. O. Merchant, the Association's Economist, submitted a report on the subject of "General Business Conditions and the Paperboard Industries." He summarized the trend of business barometers, referred to the stock market and also made mention of the outlook for the Paperboard Industries. In this presentation he also referred to charts depicting basic conditions in the paperboard industries, as well as other charts showing the trends in more or less analogous industries.

F. J. Kress Appointed Delegate

Mr. F. J. Kress, President, F. J. Kress Box Company, Pittsburgh, was appointed as a delegate to represent the association at the Annual Meeting of the Chamber of Commerce of the U.S.A., to be held in Washington, D. C., May 11-14.

Samuel Samuels submitted at the General Meeting a Resume of subjects considered at the Container Group Meeting on the previous day. H. C. Stevenson gave a similar report of the Folding Box Group meeting.

Paperboard Group Meeting

At the opening of the Paperboard Group Session, Vice-President, Walter P. Paepcke, made some interesting statements in which he stressed the desirability of members cooperating to the utmost in furthering the general welfare of the industry. His remarks were well received.

Statistical subjects of interest to the Group were discussed.

The general manager reported upon classification matters, making special mention of a proposal on the part of the Consolidated Freight Classification Committee to make certain changes in the Classification entry covering pulpboard.

Vice-President Paepcke introduced to the members W. J. Alford, Sr., President, Continental Paper Company, Bogota, N. J., mentioning that Mr. Alford has long been engaged in the paperboard industry and that he has done much for the general welfare of those engaged in the industry. He prevailed upon Mr. Alford to make a brief statement and the latter responded in part as follows:

"In an association you can eliminate some of the ignorance that might creep into your business because you meet with others who are probably brighter and smarter than you—you get their viewpoint and they get yours, resulting in a mutual interchange of ideas that cannot fail to benefit everyone.

"An association may not operate exactly as you think it should but it is only by meeting with your fellow manufacturer and discussing matters in a broad way that you can correct the evils which creep into the conduct of your business. We are always

Save Your Wires *and* Reduce Production Costs

The Voith High Pressure Stock Inlet lengthens the life of Fourdrinier wires. It performs all of the functions of the awkward aprons and slices and by eliminating them the wire does not have to support any excess weight of water and stock. The paper stock banked up by the customary slices presses the usual long apron heavily against the wire.

The absence of this long apron, with its heavy drag and wear on the wire, reduces friction and materially lengthens its life. Moreover, the entire table surface of the wire is used for forming purposes, thus making it more efficient. A booklet giving full information regarding the many other advantages of the patented Voith Inlet will be sent on request. Write for it today.

VALLEY IRON WORKS CO.

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Users of the Voith High Pressure Stock Inlet are realizing 20% to 30% longer life from their Fourdrinier wires with a corresponding decrease in wire cost. This means that fewer wires are used. Fewer wire replacements result in lower labor expense, larger tonnage and bigger returns from the paper machines. Better paper, lower costs and a larger margin of profit make the Voith Inlet a practical investment.

more or less willing to criticise the other fellow, but we fail to take stock of ourselves. We sometimes find that we are not right ourselves. There are numerous opportunities for us to do good in the world. When you are separate and apart from your fellow manufacturers, you do not get that opportunity to do good for your industry, and when things do not go along as they should, you have no organization to help you.

"I want to congratulate you gentlemen in being in an association of this kind that is trying to work for our general good and welfare. I do not believe that there is a man here who wants to take advantage of another man. Any little differences can be ironed out if you will meet with your fellow manufacturer and earnestly try to straighten out your troubles.

"I believe you are now on the right track. You are doing good work and my wish is that you may have abundant success."

Mr. Alford's remarks were well received and were followed by applause.

Container Group Meeting

In the absence of Vice-President J. P. Brunt, the meeting of this Group was presided over by Mr. Irving Hill, a member of the Executive Committee.

The meeting discussed and took appropriate action on the following "Container" subjects: 1. Closure of Bottoms of I.C.C.-24 Corrugated Boxes by stitching the flaps; 2. Suggested change in Rule 41 so as to eliminate the Penalty charge of 20% now applying when shippers fail to certify on Bill of Lading; 3. Purchase of material for Sales Promotion work on specific articles; 4. New material suggested for use in corrugated sheet.

Standardization Committee's Report

John L. Barchard, a member of the Standardization Committee, announced that pursuant to instructions issued at the January meeting, the Standardization Committee held a special meeting in Chicago on February 16, at which consideration was given to the following subjects: 1. Specifications for Canned Food Boxes; 2. Specifications for Containers and Packing for Liquids in Receptacles up to 5-gallons capacity; 3. New Standards of Boxes to Carry 80 lbs. Gross Weight.

Mr. Barchard further explained that the subject of Canned Food Box Specifications must be held in abeyance for the time being, but that the Association is co-operating closely with the Committee representing the National Canners' Association and others, and that members will be kept informed of the developments from time to time.

He also reported that applications have been filed with the Consolidated Classification Committee looking to authorization of corrugated and solid fibre boxes for the shipment of liquids in inside receptacles up to 5-gallons capacity, as well as for certain new standards of boxes.

Inspection Service

General Manager Browder explained in detail the Association's inspection service, inaugurated in January of this year. It is believed that this activity is resulting in a higher standard of shipping containers.

Chairman Hill pointed out that every time a manufacturer furnishes a shipper with boxes which fail to meet the certificate requirements, he not only injures his customer and himself, but the industry as well. Each case of this kind, he stated, causes a depreciation in the member's investment. He emphasized the importance and necessity of furnishing only such boxes as meet the requirements of the railroads.

General Manager's Report

General Manager Browder's report on container subjects has been mailed to members. The report dealt with certain suggested changes in packing regulations, which if favorably considered, will open up additional business to the fibre shipping container industry. This report was well received and favorably commented upon.

Folding Box Group Meeting

In the absence of Vice-President A. C. Osborn, Mr. H. C. Stevenson, a member of the Executive Committee, presided.

Specified Inks

The practice of the buyer of folding cartons specifying that a certain kind or manufacture of ink shall be used, was discussed.

Trade Customs Adopted

Mr. Stevenson, as Chairman of the Trade Customs and Practices Committee, reported that the Committee had held a special meeting and desired to present for consideration of the Group a recommended set of Trade Customs. The Group unanimously adopted the following Trade Customs, which had been recommended by the Committee:

SKETCHING: No competitive and speculative sketching is to be done without charge.

ENGRAVINGS: No engravings or drawings should be made by any manufacturer unless their full value has been included in the estimate, and the manufacturer should invariably retain ownership of them.

WAREHOUSING: All estimates should be based upon shipping the cartons when finished and quotations should be made accordingly.

If warehousing privileges are sought by the buyer a special additional charge should be included in the selling price, sufficient to cover the full cost of interest, storage, insurance and handling.

All contracts should specify the date of first shipment. Contracts should specify wherever practicable the dates of subsequent shipments.

BILLING: All contracts should be billed to the seller in accordance with the shipping dates in the contract, unless shipped earlier.

FREIGHT: All goods should be sold f.o.b. place of manufacture. Whenever freight is allowed, the full amount of it should be made the subject of an extra charge or included in the selling price of the cartons.

TERMS: All bills to be thirty days net or 1 per cent discount for cash ten days.

General

Each of the Groups individually, adopted a revised schedule of Association meetings. The new schedule provides that meetings of two of the groups shall be held on the first day of the meeting, with a meeting of the third group on the morning of the second day; the afternoon of the second day being devoted to the meeting of the three groups in joint session.

This change was made following approval of a suggestion submitted to the individual groups by the Executive Committee of the Association.

Announcement of Next Meeting

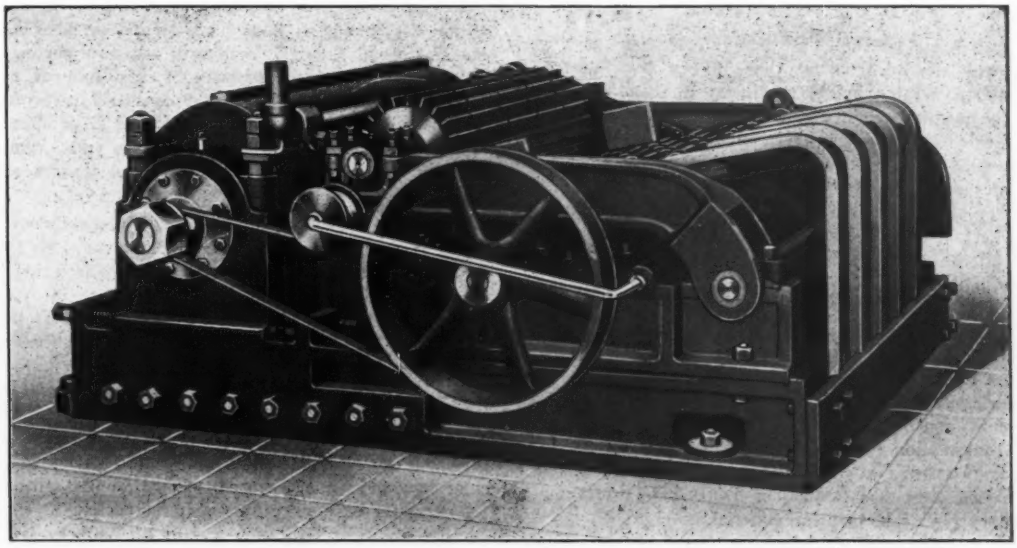
Announcement was made that the next meeting of the Association will be held in Chicago on the following dates: Tuesday,—May 25th, Meetings of Standing and Executive Committees; Wednesday—May 26th, Meeting of two of the Groups; Thursday—May 27th, *Morning*—Meeting of the third Group; *Afternoon*—Meeting of the three groups in Joint Session.

Rags Admitted Without Disinfection

WASHINGTON, D. C., April 14, 1926.—The government no longer requires consular certificates of the disinfection of rags imported into the United States according to a statement being sent to collectors of customs by E. W. Camp, Director of Customs. In this connection Mr. Camp has received the following communication from the Public Health Service:

"This circular is of general application, so that rags from any country in the world may be admitted into the United States and its possessions, or dependencies, without a consular certificate of origin or disinfection, provided that such rags are clean and have not been exposed to infection."

THE ARPEKO SHREDDER FOR EFFICIENCY



The Improved Arpeko Shredder

This sturdy shredder is built mechanically right. With its massive arbor mounted in Timken Tapered Roller Bearings power consumption is at a minimum. The starting load is only 5 H. P.

Shredding with a true tearing action, it neither cuts nor shortens the fibres, but leaves them most susceptible to quick hydration and suitable for further refinement.

Tell us what you have to shred and we will give you further details of interest about the ARPEKO SHREDDER.

RYTHER & PRINGLE CO.
CARTHAGE, NEW YORK

Alaskan News Print Industry Opening

With the appointment of B. F. Heintzleman, in charge of the stumpage for the Bureau of Forestry, Tongass and Chugach National Forests, Alaska, as missionary to "sell" to paper manufacturing interests the idea of locating paper mills in the Territory, the prospects for utilization in the very near future of the vast stands of hemlock and spruce are bright indeed.

The situation has been greatly clarified by recent rulings of the Department of Agriculture and what paper financiers have always regarded as obstacles to the investment of capital are so modified as to now constitute a very favorable situation.

Principal Modifications

The principal modifications are those of an increase in the period of stumpage rates, before readjustment, from five to ten years, and the maximum unit of timber possible of being segregated in one sale of from two to three billion feet, board measure. These concessions remove all remaining excuse for the industry to seek foreign supplies of raw materials. Whether or not this Forest Service official-missionary "puts over" the idea, bears no relation to the fact that the news print industry is about to open in Alaska and the coming summer will note the appearance of many scouts in the field.

While it is true that capital has decided that it is too early to commence the making of pulp and paper in Alaska, there are economic factors at work that may upset these decisions, made, perforce, because of the extensive outlay of money for the development of Canadian mills. The principal factor that is liable to hasten the utilization of Alaska's pulp timber supply is the rapid increase of consumption of news print in the United States. It is authoritatively stated that the ratio of increase would be much higher were publishers of metropolitan dailies able to foresee a more certain supply of news print material.

Economical Transportation

The matter of economical transportation of news print stock from southeastern Alaska to consuming centers has ever been a discouraging subject to talk about with those who but indifferently regard the matter. It readily resolves itself into an interesting subject when carefully analyzed. Alaska is an immense territory, possibly nearly half the area of the United States. But a look at the map will disclose a narrow coastal strip about 500 miles in length stretching southeastward and northwestward from the Canadian-U. S. boundary to the Gulf of Alaska. In this strip lies all of the pulp timber Alaska possesses. This strip, flanked on the eastward by British Columbia and Yukon Territory, averages about 50 miles in width; contained in it are both the Tongass and Chugach National Forests with their possible total of 150,000,000,000 feet of hemlock and spruce and cedar.

Alaska proper, that is, the main body, lies above and is the faraway, ice-bound land usually considered to be all there is of Alaska.

The Tongass National Forest averages only about 750 miles from Seattle, Wash. The most southerly part, which is very heavily forested and has immense water power, is less than 650 miles distant from the States' most northerly port of consequence on the Pacific. Freight carriers can make the run from Ketchikan to Seattle in fifty hours. It is possible to load a cargo of paper on a modern ocean carrier at any of the fine deep tidewater harbors in southeastern Alaska and reach the port of New York in twenty days, without a single movement or transshipment of the cargo.

To Buy Two or More Stripping Vessels

A case in hand that comes to the writer's mind is that of a prospective manufacturing concern, which plans to make news print stock in southeastern Alaska, and whose budget of equipment includes the acquisition of two or more 8,800 ton shipping board vessels to operate solely for the purpose of transporting the finished product from the mills direct to the consuming points. The investment is comparatively small and there is a possibility of a return cargo, particularly if the route is trans-oceanic, and a wide-awake agent at the discharging end finds some periodic shipments of materials that could be loaded and unloaded by the same automatic equipment that is employed in loading and unloading rolls of news print. The purchase of two large freighters by a large paper manufacturing concern in New Foundland to be used solely for carrying the finished product from the mills to points of consumption, place such a move as this by the Alaska concern within the bounds of good business and sound economy. It has been adduced by those having made a careful survey of the trans-oceanic situation that news print in cargo lots can be transported via the Panama Canal from the southerly part of southeastern Alaska to New York for between $6 and $7 per ton. This is not at a profit, however, but does include the vessel returning in ballast. It is implied also, that mechanical loaders and unloaders would be employed at each respective end.

Pulpwood Handled Differently

The eastern pulpwood man would find conditions not at all similar in harvesting pulpwood in Alaska. There, in the east and northeast he is a "cord wood" man. Here in Alaska he must needs be a full-fledged "logger." The economical method in the latter place is to "log off" the timber, say in 24 foot lengths, work them down to tidewater by yarders and aerial tramways and thence to the mill in booms. A further suggested method of preparation is for these 24 foot logs to be conveyed from the forebay to huge spindle lathes of a special design which rosses the bark from them; they then may be bucked up into four foot lengths by a sextet gang saw and from there introduced in the splitting machines, following the customary treatment thereafter.

To Insure Supply of Timber

It is the purpose of the Forest Service to aid in the location of paper mills in a manner that will insure each mill a supply of pulp timber so that each concern may enjoy unrestricted tenure of licensed existence, untroubled by the specter of an exhausted supply of pulp timber. In most instances a medium sized mill, say 250 tons daily capacity, may continue to harvest pulp timber indefinitely within a thirty mile radius, and an 800 ton mill in a 50 mile circle. Small mills, of 100 tons and less will not be profitable in Alaska, so there is no use in discussing them.

There are numerous safeguards thrown around the well-intentioned prospective paper manufacturing concern in Alaska by the Federal Power Commission and the Forest Service—safeguards that are impossible in the States or in Canada, and this last-mentioned is most vital. Think of it! A magic circle encloses within its bounds *your* timber for fifty years. You log it all off and then go back over it again (you, or your successors) and find a second merchantable stand ready for its conversion into paper. This is the ideal that paper manufacturers have been striving for for the last twenty-five years. It would be crass folly for the large consumer of news print to close his ears and eyes to this economic call of Alaska and visualization of this immense storehouse of material immediately available and wonder where his next ten years' supply of paper is coming from. There is no argument about it; it is coming from Alaska.

Large Investments Necessary

The investment of large amounts of capital are necessary in the paper manufacturing industry, in any case. It is notoriously true as regards Alaska, for things are best done in a magnificent manner in the Territory; but the result justifies the amplitude—or has in every instance where capital has been employed unstintedly in the mining and fishing industries of Alaska. Alaska is the American's own "gold mine," the capital invested in the develop-

(*Continued on page 78*)

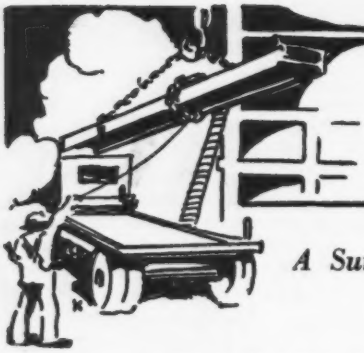
—LICENSED—

For several years we have been producing Aldrich Removable Fourdriniers We interchange design with the Inventor

ASK US

The Pusey and Jones Company

Wilmington, Delaware



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Port Angeles, Wash.—The Washington Pulp and Paper Corporation has completed plans and will soon begin work on a number of additions to its mill to provide for large advance in capacity. The entire project is estimated to cost close to $1,000,000, including machinery. A general contract for buildings only has been awarded to Christopher Kuppler & Sons, Port Angeles. The company will also build a new power dam on the Elwha River, near Port Angeles, to be used for hydro-electric power service for the mill. V. D. Simons, 431 North Dearborn street, Chicago, Ill., is engineer.

East Walpole, Mass.—Bird & Son, Inc., East Walpole, manufacturers of paper roofing and other kindred products, has asked bids on general contract for the erection of a new addition to its plant, to be three-story and basement, 75 x 255 feet, estimated to cost close to $150,000, with equipment. The structure will be used largely for storage and distributing service. Monks & Johnson, 99 Chauncey street, Boston, are architects and engineers.

Bastrop, La.—The Bastrop Pulp and Paper Company is reported to have tenative plans under consideration for a large addition to its mill, to double approximately the present size and output. The work will comprise a group of buildings and the installation of additional machinery. It is purposed to develop an output of 120 tons per day. The estimated cost of the expansion is placed at $850,000.

Buffalo, N. Y.—The Burt Box Company, Seneca and Hamburg streets, manufacturer of paper boxes and containers, is said to be arranging to ask bids for the erection of its proposed new addition, reported to cost in excess of $250,000, with machinery, which will provide for extensive increase in present production. Plumer & Mann, Inc., 700 Main street, Buffalo, are architects.

Indianapolis, Ind.—J. Ott, care of the Guarantee Tire and Rubber Company, 211 South Illinois street, has completed plans and will proceed with the rebuilding of his warehouse at 521 East Washington street, used for paper storage and distributing service, recently partially destroyed by fire. It will be three-story, 55 x 200 feet, estimated to cost al out $50,000. A contract for the work has been let to the M. P. Junglaus Company, 825 Massachusetts avenue. The structure has heretofore been occupied by the Indiana Paper Company, now temporarily located at 18 North East street, which is understood to be arranging to resume business at this location following completion of work.

Brookfield, Mass.—The McLaurin-Jones Company, manufacturer of coated paper products, has plans in preparation for the construction of a new addition to its mill, to be two-story and basement, 65 x 85 feet, reported to cost about $50,000, with equipment. It is expected to ask bids at an early date. The S. H. Pitcher Company, 44 Front street, Worcester, Mass., is architect and engineer.

Baltimore, Md.—The Baltimore Paper Box Company, Key Highway, near Covington street, has completed plans and will soon begin the erection of a new addition to its plant, to be one and two-story, 80 x 200 feet, with extension, 50 x 80 feet, reported to cost close to $70,000. The extension, will be largely for storage and distributing service. D. S. Sackerman, 125 East Baltimore street, is architect.

Hamilton, Ohio—The Beckett Paper Company has plans for a one-story addition to its mill to be used as a finishing room extension, estimated to cost approximately $30,000. New equipment will be provided. A contract for building only has been let to the Vaughn Building Company, Dayton street, Hamilton.

Greensburg, Ind.—The Kennedy Bag and Car Liner Company, Shelbyville, Ind., manufacturer of paper specialties, has awarded a general contract to the Shelby Construction Company, Shelbyville, for the erection of a new two-story and basement plant on local site, 45 x 160 feet, reported to cost about $30,000. Work will proceed at once.

St. Louis, Mo.—The Federal Paper Stock Company, 4820 McKissock street, will proceed with the erection of a new three-story building on McKissock street, 100 x 105 feet, to be used primarily for storage and distributing service. It will cost approximately $25,000. A. Meyer, Central National Bank Building, is architect.

Irvington, N. J.—The Standard Paper Products Corporation, organized by G. C. Abernethy, formerly connected with the International Paper Products Corporation, has leased a portion of a new building on Chancellor Avenue, constructed by James C. Sapienza, totaling about 10,000 square feet, and will establish a new plant for the manufacture of envelopes and other paper specialties. It is expected to begin operations at an early date. Mr. Abernethy is president of the company.

North Tonawanda, N. Y.—The former plant of the Fenton Fibre Box Company has been acquired in two different sections by the Weatherbest Stained Shingle Company, and the Awanda Lumber Company, and will be used for other production. The manufacture of fibre containers will be entirely discontinued.

Newark, N. J.—The Lowmar Paper Company, 72 Clinton street, has leased a portion of the building at 72-76 Mechanic street for a new plant, for sstorage and distributing service. The space totals about 12,000 square feet. The company plans to remove its present works to this location. Lewis Weisman is head.

Milwaukee, Wis.—The Wisconsin Waste Paper Company, 461 Fifth street, has asked bids on general contract for the construction of a new two-story warehouse at Thirtieth and Auer streets, to be 50 x 100 feet, reported to cost about $25,000. It is planned to begin work at an early date. George Sagel & Brothers, 144 Oneida street, are architects. Joseph Bogast is president.

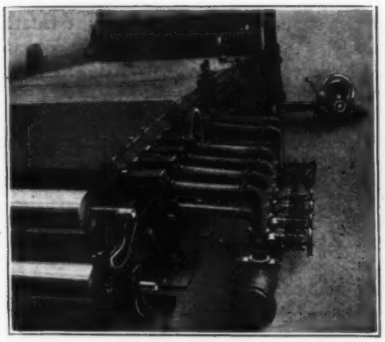
Newark, N. J.—The Essex Paper Box Manufacturing Company, 67 Hamilton street, has acquired a one-story factory at 67-71 Coble street, near Astor street, on site 75 x 100 feet, and will use it for a new plant. The new owner will make improvements and alterations, and plans the early installation of machinery. It is understood that the present works will be removed to the new location. Additional machinery will be provided for increased output. John Lambiase heads the company.

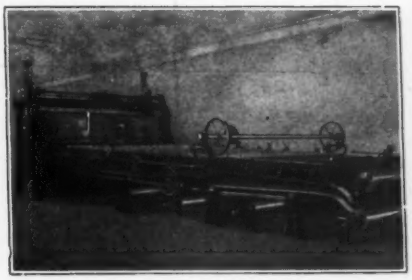
St. Jerome, Que.—The Rolland Paper Company is consider-

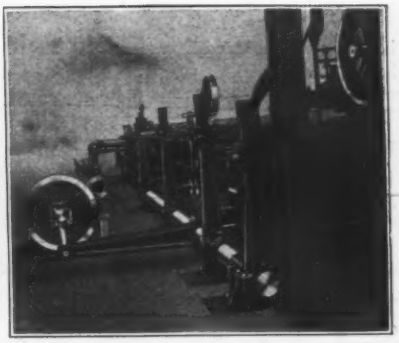
[PATENTED]

3 Advantages

1 ADJUSTABLE
2 REMOVABLE
3 SHAKEABLE







THE Adjustable, Removable and Shakeable features of the NEW BELOIT FOURDRINIER have demonstrated over a period of some years that this new advancement in the science of paper-making is practical, efficient and economical. Records have proved it and are proving it daily in actual service.

The amount of throw of the Beloit Shake may be adjusted by a simple hand-wheel and the speed of throw by an adjustable motor, while machine and shake are running.

Unusually heavy construction of shaft, bearings and upright shake post. Shake is applied at four places, but it may be detached from any one or all four. The light shaking rails are supported from the heavy stationary ones by flexible leaves. The shake assures a better formed sheet, at a higher speed.

Wires are changed in an hour or less, saving hours of extra labor and man power, and materially increasing the life of wires.

Adjustable, as to pitch to suit stock conditions and different grades; Removable for ease and speed in changing wires, and Shakeable for the interlacing of fibres at increased speeds—these are the three main features of the NEW BELOIT. You will find its other features equally favorable, in keeping with the three mentioned.

Let us send you Bulletin No. 9

The NEW BELOIT FOURDRINIER

FOUNDED 1858 BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS.

BELOIT IRON WORKS Beloit, Wisconsin, U. S. A.

ing preliminary plans for the construction of a new addition to its plant, including improvements in existing mill. It is proposed to proceed with the work in about 60 or 90 days. It is estimated to cost close to $115,000, including equipment.

Three Rivers, Que.—The St. Lawrence Paper Company, Ltd., has asked bids on general contract for the construction of its proposed new local mill, consisting of a number of units, reported to cost in excess of $1,500,000, including machinery. The plant will be used for the production of news print. O. H. White, Three Rivers, is architect and engineer.

New Companies

Grand Rapids, Mich.—The Michigan Tag Company has been incorporated with capital of $50,000, to manufacture and deal in paper tags and kindred specialties. The incorporators are Bert Deyo, J. Ruskin and James S. Sanders, 1691 Longfellow Avenue, Grand Rapids.

New York, N. Y.—The Fort Hamilton Paper Box Company, has been incorporated with a capital of $20,000, to manufacture and deal in paper boxes and containers. The incorporators are L. Oppenberg, L. Smith and J. Lembock. The company is represented by A. Green, attorney, 42 Broadway, New York.

Chicago, Ill.—The Prato Paper Company, 9 South Clinton street, has been incorporated with capital of $20,000, to manufacture and deal in paper products. The incorporators are William E. Hall, Peter M. Prato and Paul L. Dowe.

New Orleans, La.—The Phoenix Box Factory, Inc., has been incorporated with capital of $20,000, to manufacture paper boxes and other containers. William Grassel, 2515 Constance street, New Orleans, heads the company.

New York, N. Y.—The United Bond and Banknote Company has been incorporated with 2,000 shares of stock, no par value, to manufacture and deal in paper goods. The incorporators are K. B. Russell, S. Preston and E. W. Lawrence. The company is represented by Hun, Parker & Reilly, attorneys, Albany, N. Y.

American Envelope Co. Gets New Site

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 12, 1926.—The American Envelope Company in West Carrollton has acquired a site in the immediate vicinity of its present plant for possible expansion. It has not yet been announced what kind of a building will be erected. The company's products always have been in heavy demand and it has been necessary to establish an additional business at Miamisburg.

With ample ground on which to build, the company will be in a position to prosecute building improvements at any time in the future.

At the present time West Carrollton is installing a new village fire apparatus at a cost of $8,000 for which Council drafted an ordinance authorizing the issuance of bonds.

With the large plant of the Miami Paper Company, the parchment plant and other mills, the village officials felt there should be better and more efficient fire protection. West Carrollton has a population of 1500, the greater part of whom are engaged in the paper industry. Whatever is done for the town, naturally redounds to the advantage of the various mills.

International Paper Expands Production

Total production of all grades of paper by the International Paper Company in 1925 was 504,000 tons, against 434,000 tons in 1924. Approximately 60 per cent of the 1925 production, or 310,000 tons, news print. Production of high grade paper was increased approximately 11,000 tons in 1925, due principally to acquisition of the Ticonderoga mill in 1925. Bleached sulphite pulp and viscose produced and sold in 1925 totalled 69,000 tons, all representing an increase because this commodity is produced in the Kipawa and Hawkesbury mills of the Riordan Company, purchased by the International Paper in 1925 and has not hitherto been produced by the company. With enlarged capacity and newly acquired properties, the International Paper Company expects to produce in 1926 around 2,300 tons of all grades of paper daily, with a total production of about 600,000 tons for the year.

This increased capacity has resulted from a far-reaching program of expansion inaugurated in 1925, which includes doubling the capacity of its Three Rivers, Quebec, news print mill; increasing the capacity of the Kipawa pulp mill at Temiskaming, Quebec, by 50 per cent; developing additional water powers of approximately 200,000 horsepower, and construction of another large news print mill in Canada at West Templeton on the Ottawa River. Part of this expansion is now completed and should be reflected in the 1926 earnings, but the full effect of these additions will not be felt until 1927.

Cutting Pulpwood in Glens Falls District

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., April 12, 1926.—More than 200,000 cords of pulpwood are being handled in the Glens Falls and Ogdensburg sections this spring. There was no log drive on the Schroon River this spring and while there was an unusually large cut in North Creek and vicinity most of the pulpwood requirements of the Schroon River Pulp and Paper Company of Warrensburg are being received by rail.

Approximately 90,000 cords of pulpwood will be received at the Ogdensburg terminal and 30,000 cords at Waddington this year. The wood brought to Ogdensburg will be shipped by rail to the paper mills at Pyrites and that unloaded at Waddington will go to the mills of the St. Regis Paper Company. A representative of the St. Regis Company was in Ogdensburg this week conferring with the Longshoremen's Union relative to the wage scale for this year.

Mechanical changes have been made at the Ogdensburg terminal to facilitate the handling of the pulpwood shipments. These changes were made necessary by the decision to eliminate the sawing this year. It has been the custom heretofore to saw the four foot logs into two foot lengths after being unloaded. The saws and other equipment have been removed from the terminal. Officials say the work can be carried on with more efficiency and less expense by the new method.

Boston Business Satisfactory

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 12, 1926.—Actual spring business got under way this week and while the trade is not booming there is a generous distribution of orders being reported in the various divisions of the trade. True, a large percentage is of the hand-to-mouth variety but the volume is large and quite widespread. Just now there seems to be a drive on collections, a sort of a spring financial house cleaning, and a majority of the houses report old accounts fairly well caught up.

The fine grade houses are having about all they can take care of, according to certain executives in some of the older stores. The printers' and stationers' demands are keeping the white paper divisions extremely busy. Seasonal activities call heavily upon the box makers and wrapping paper men while bonds and commercials are in heavy demand.

The catalogues are coming off the presses now and this means tons of paper to fill the printers orders and mail order and direct-by-mail houses. The candy and clothing businesses are of course active now and this reflects upon the box business favorably.

C. G. Phelps Returns From Southern Trip

Charles C. Phelps, secretary and sales manager of the Uehling Instrument Company, Paterson, N. J., has just completed a ten weeks' trip visiting all of the company's Southern representatives as well as several in the Middle West. Most of this time was devoted to actual field work with the idea of better fitting the representatives to cooperate with users of Apex CO^2 recorders and fuel waste meters. Mr. Phelps made a special study of the application of these instruments in oil refineries, for which service they have been widely adopted.

International Earns $1,571,281 in 1925

The International Paper Company reports for the year ended December 31, 1925, net earnings of $1,571,281 available for common dividends after depreciation, interest, taxes, preferred dividends in including reduction of contingency reserves set up at the end of 1924 against the news print price decline which the management foresaw was inevitable during 1925.

Important points in president A. R. Graustein's remarks included the first announcement that a new news print mill is contemplated to be built on the Quinze (Upper Ottawa) River, some time in the next four years; announcement that the company has under option sufficient woodlands ot assure its Bastrop, La., kraft mill a supply of raw materials for al ltime; a statement that the policy of balancing mill construction with acquisition of timber limits in Canada will assure the company's mills there a permanent supply of wood, and a statement that the Kipawa bleached sulphite mill is now producing 50 per cent of all this material used in the world for the manufacture of rayon, or artificial silk.

President Graustein said in part: "Total production of paper during 1925 aggregated 503,702 tons, against 434,288 tons in 1924. Increase is due in part to the acquisition, during the year, of the Ticonderoga, N. Y., and Bastrop, La., mills. The price of news print was reduced to $70 a ton on January 1, 1925, remaining at that price over the year. On January 1, 1926, it was further reduced to the present figure of $65 a ton. This reduction should be offset at least in part by increased production and increased profits from other products.

"With the completion of doubling the capacity of the Three Rivers Mill and the construction of a new mill on the Gatineau River in Quebec, the company will have a daily output of abou 1,200 tons of low cost news print in Canada. The Kipawa bleached sulphite mill at Temiskaming, Quebec, has been increased from 170 to 250 tons daily capacity and this is estimated to be 50 per cent of all the pulp used in the world for themanufacture of rayon, or artificial silk.

"The acquisition of the Riordon properties was successfully consummated in April, 1925, and the results of their operation have to date equaleld expectations.

"The Bastrop sulphate pulp and paper mill which was acquired in July, 1925, has proved ot be a profitable investment. Although at present operating on purchased wood, the company has taken an option on a tract of woodland, which, if the investigation now under way proves up, will assure the enlarged mill at reasonable cost of a permanent supply of raw material from its own lands. This mill is located at Bastroy, Louisiana, in the natural gas belt.

"The company has also acquired approximately 376 square miles of Crown timber limits on the Gaspe peninsula and 2,000 square miles on the upper Ottawa and Gatineau Rivers, in Quebec. The latter will permit the enlargement of both the Kipawa and Gatineau mills and wil lreinforce the available supply for the news print mill which the company contemplates building on the Quinze (Upper Ottawa) some time during the next four years. These acquisitions reflect the policy of balancing mill construction with adequate timber reserves so that the company's mill properties will be assured of permanence."

Sidney Paper Box Novelty Co. Starts

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 12, 1926.—A comparatively new industry is the Sidney Paper Box Novelty Company, which recently was incorporated with local capital interested. The enterprise was started by George Gagoudy, of Kalamazoo, Mich., who presented the plans to a number of Sidney business men with the result that a building of ample size was leased and within a short time plant operations were under way.

While the incorporators counted substantially on the local trade, owing to the presence of numerous candy factories, they planned for expansion which now is assured. Several carloads of boxes have been forwarded to Greenville and nearby towns which consume large quantities of boxes and novelties.

Mr. Gagoudy, who is in charge and who supervised the installation of machinery, has had considerable experience in this line, having been engaged with the Kalamazoo Stationery Company. He was in charge of their box department in New York and received his experience in Kalamazoo.

In addition to novelties, the company is manufacturing candy, jewelry, silk and velvet boxes.

New Home for Royal Card & Paper Co.

About July 1 the Royal Card and Paper Company will remove to the Zinn Building, southeast corner Eleventh avenue and 25th street, New York, which has been purchased for its occupancy.

This magnificent building, containing as it does eleven floors, each 100 by 100 feet, will be a most ideal paper warehouse.

The weight capacity of each floor is 250 lbs. to the square foot, permitting capacity storage. Two freight elevators, besides one for passenger service, and a private truck loading platform

THE ZINN BUILDING, NEW YORK.

on the 25th street side will afford the quick filling and dispatch of all orders, large and small.

It is planned to house al lstock under the one roof, thereby eliminating the delay in filling orders from warehouse stocks.

The sales department, envelope factory and fancy paper manufacturing department will be given much more space to care for their increasing requirements.

The location is ideal, being directly across the New York freight terminals of practically al lrailroad lines. Access to New Jersey is had via 23rd street ferry practically at the door.

Trucking facilities on Eleventh avenue alolw the fastest routes both up and down town and will eliminate much of the delay caused trucks in more congested districts.

Gummed Tape Manufacturers to Meet

The National Association of Gummed Tape Manufacturers is scheduled to convene at Chicago on May 26.

New York Trade Jottings

The Binders Board Manufacturers Association is to meet at the Canadian Club, New York, next Monday, April 19.

* * *

W. G. Mitchell and Harry Munro, of Price Brothers & Co., Ltd., Kenogami, Que., are New York visitors this week.

* * *

J. R. Donald, of J. T. Donald & Son, consulting chemists, of Montreal, has been visiting his friends in the New York paper trade.

* * *

George M. McKee, president of the Port Alfred Pulp and Paper Corporation, of Port Alfred, Que., was a prominent visitor to New York last week.

* * *

A. O. Bragg, of Bauer Brothers, Springfield, Ohio, was in New York last week. Mr. Bragg is known as an authority on paperboard manufacture and is the author of the treatise on "Paperboard and its Manufacture" running serially in the PAPER TRADE JOURNAL.

* * *

The Champion Coated Paper Company are to entertain the members of the New York Club of Printing House Craftsmen, tonight, Thursday, at the Arkwright Club, New York. E. Kenneth Hunt is scheduled to give an interesting address on "Unusual New Methods of Paper Making."

* * *

The menu used at the recent dinner of the League of Advertising Women of New York, was unusually unique and attractive, a very artistic effect being gained by using decorative glassine paper, supplied by the Beekman Paper and Card Company, Inc., of 137, 141 Varick street, for the cover.

* * *

Joseph Haas, of Haas Brothers, paper dealers, of 154 Nassau street, is sailing on Saturday for Holland aboard the steamer *Nieuw Amsterdam*. Mr. Haas expects to be away for two or three months and during his visit plans to extend the foreign connections of his organization in Europe.

* * *

Philip T. Dodge, president of the Herkimer Fibre Company, and a former president of the American Paper and Pulp Association, who has been recuperating for some time along the shores of the Mediterranean, writes from Cairo, Egypt, that he plans to sail for the United States on April 26.

* * *

W. G. McNaughton, secretary of the Technical Association of the Pulp and Paper Industry, attended a conference at Baltimore on Tuesday, called by the State Board of Health, when the subject of "Paper Mill Waste and Stream Purification" was freely discussed by officials of the Sanitary Water Board of Maryland and representatives of the paper mills.

* * *

The Pioneer Paper Corporation, of Hoboken, N. J., announces that William V. Brooks, formerly with the Columbian Rope Company, of Auburn, N. Y., has been appointed manager of sales of the twine and rope department of the organization. The Pioneer Paper Corporation has served the trade for a period of 34 years and carries a complete stock of coarse papers and twines.

* * *

Waldemar Wahl, of the Finnish Cellulose Association, arrived in New York last week aboard the steamer *Stockholm* to inspect the principal paper mills in the different sections of the country. While in the United States he will make his headquarters with the Lagerloef Trading Company, at 52 Vanderbilt Avenue, New York.

* * *

It is announced that Sol Ash, president of Sol Ash, Inc., paper stock dealers and importers, of 1440 Broadway, New York, is to be married on May 2 to Miss Lillian Hollander, of New York. Mr. Ash and his future bride plan to spend their honeymoon in Europe and are scheduled to sail aboard the steamer *Leviathan* on May 5.

* * *

The weekly luncheon of The Salesmen's Association of the Paper Industry, held last Monday at the Town Hall Club, New York, was well attended. Walter E. Perry, president of the Chemical Paper Manufacturing Company, of Holyoke, Mass., and also president of the association, gave an illuminating talk on the importance of accurate reports to the paper industry.

* * *

Mathieson Alkali Works, Inc., announce that Daniel Townsend, president of the Fields Point Manufacturing Company, of Providence, will in future handle the sales of Mathieson and his own company in the New England territory under the direction of the Mathieson sales office in New York. The corporation also announces the appointment of William A. Field as Chicago district sales manager, succeeding J. B. Peake, resigned. Mr. Field was foormerly located at St. Louis. The St. Louis office is now in charge of Frederick H. Lovenberg, formerly of the New York office.

* * *

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, left New York for Poughkeepsie on Tuesday to address the members of the Service Clubs on New York's Forest Problems. Following the event he proceeded to Chicago and thence to Warsaw, Wis., to attend a conference of paper and pulp manufacturers and lumbermen today, Thursday, and Friday. The object of the convention is to consider a forestry policy for the State of Wisconsin. D. A. Crocker, forester, of the Woodlands Section, also attended the convention.

* * *

Percy B. Wilson, vice president of the Spanish River Pulp and Paper Mills, Ltd., vice president of the Fort William Paper Company, Ltd., and chairman of the executive committee of the News Print Service Bureau, was in New York early this week. Accompanied by his wife and youngest daughter, he sailed on the *Empress of Scotland* on Tuesday for Europe, and will proceed to Rome, where he is to represent the News Print Service Bureau at the International Forestry Conference between April 29 and May 5. Following the convention, Mr. Wilson and his wife and daughter intend to visit some of the most interesting spots on the other side, and expect to sail from England on their return voyage some time in July.

Bids and Awards for Government Paper

WASHINGTON, D. C., April 12, 1926.—The Bureau of Engraving & Printing will receive bids on April 29 for paper for the U. S. Internal Revenue and postage stamps. It is estimated that about 2,000,000 sheets of 18½ x 20¾" postage stamp pare will be needed and about 2,000,000 pounds of white paper in rolls. The bureau also estimates that about 2,400,000 pounds of blue and white paper will be needed for the Internal Revenue stamps.

The Mathers-Lamm Paper Company has been awarded the contract for furnishing the Government Printing Office with 40,000 pounds (20,000 sheets) of 20 x 30—No. 25, No. 2 binder board at $73.00 per ton, bids for which were received on March 22.

The Davey Company will furnish 36,500 pounds (6,300 sheets) of various sizes best quality binders board at $125.00 per ton, bids for which were received on March 12.

Glazed and Fancy Paper Men to Meet

The next meeting of the Glazed and Fancy Paper Manufacturers Association is scheduled to take place at Springfield, Mass., on May 5.

BLEACHED and UNBLEACHED
SULPHITES
KRAFT PULPS
GROUND WOOD
NORRONA
PULP STONES

PERKINS-GOODWIN CO.
33 WEST 42nd STREET
NEW YORK

PAPER
PRINTING PAPER
of
EVERY DESCRIPTION

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending February 28, 1926, and for the Eight Months Ending February 28, 1926 as Compared with Corresponding Months of Previous Year

IMPORTS—PAPER

	February				Eight Months Ending February 28			
	1925		1926		1925		1926	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Paper and manufactures (total)	.....	9,141,470	.....	10,430,686	.....	76,951,818	.....	80,189,534
Printing paper—								
Standard newsprint .....lbs...free	221,883,699	7,988,410	266,438,289	9,096,148	1,812,162,471	66,362,184	1,967,228,991	69,614,570
Imported from—								
Finland	4,198,451	128,462	1,604,974	43,480	44,161,899	1,408,844	18,567,033	555,617
Germany	3,478,171	104,578	3,337,292	100,731	34,646,552	1,039,699	34,045,443	1,045,730
Netherlands	.....	.....	.....	.....	1,017,960	33,103	352,849	10,600
Norway	3,239,594	103,543	685,449	20,629	29,785,492	934,079	15,431,097	465,692
Sweden	7,936,628	239,574	9,361,604	287,065	105,669,811	3,304,654	80,063,393	2,429,012
Canada	202,270,533	7,388,405	241,036,474	8,300,935	1,583,910,751	59,213,024	1,758,291,057	63,099,849
Other countries	760,322	23,848	10,412,496	343,668	12,970,006	428,781	60,478,119	2,008,070
All other, n. e. s.....lbs...dut.	1,757,395	76,939	1,037,712	52,872	16,935,251	749,478	8,259,011	415,016
Grease-proof and water-proof papers..lbs...dut.	91,224	11,541	150,541	29,077	762,629	91,172	1,443,516	199,318
Kraft wrapping paper .....lbs...dut.	1,606,566	65,983	952,120	40,190	14,551,910	590,234	8,113,961	353,737
All other wrapping paper.....lbs...dut.	1,012,235	41,261	536,120	31,691	10,139,109	412,084	2,715,460	157,170
Writing, drawing, bond, etc.....lbs...dut.	200,215	40,713	288,271	56,883	2,026,916	478,514	2,314,239	542,127
Surface coated .....lbs...dut.	132,151	41,577	116,008	44,415	1,379,937	331,887	1,046,126	381,375
Tissue paper .....lbs...dut.	272,983	112,660	298,499	129,468	1,753,641	706,302	1,653,525	705,790
Pulp boards in rolls .....lbs...dut.	6,383,888	171,084	6,881,057	173,658	44,184,136	1,206,797	46,315,359	1,191,634
Other paper boards, n. e. s.....lbs...dut.	2,598,598	61,521	1,679,536	45,652	20,858,183	481,801	17,342,631	444,080
Cigarette paper, cigarette books and covers .....lbs...dut.	277,028	76,680	814,629	216,548	6,470,807	1,844,424	8,135,551	2,312,848
Hanging paper .....lbs...dut.	605,164	55,512	300,216	63,992	8,015,856	388,779	3,282,113	423,325
Paper boxes .....lbs...dut.	231,378	149,943	157,112	87,434	1,493,244	988,941	1,396,034	761,447
Pulp or papier-mache and manufactures of, n. e. s. .....lbs...dut.	.....	.....	437,063	61,869	.....	.....	670,184	95,149
Duplex decalcomania, not printed.....lbs...free	62,068	14,611	67,302	17,088	378,556	89,725	302,368	76,569
All other .....dut.	.....	233,035	.....	283,701	.....	2,229,496	.....	2,515,377

WOOD PULP

Mechanically ground wood pulp.....ton..free	24,607	781,336	20,441	588,527	174,533	5,574,694	202,396	5,697,381
Chemical wood pulp—								
Sulphite, unbleached .....ton..free	44,739	2,380,066	41,466	2,433,722	435,278	23,048,372	401,756	22,290,624
Sulphite, bleached .....ton..free	27,795	2,131,683	19,630	1,665,969	207,905	15,489,858	177,907	14,343,490
Total sulphite .....ton	72,534	4,511,749	61,096	4,099,691	643,183	38,538,230	579,663	36,634,114
Imported from—								
Finland	5,689	309,015	.....	.....	36,997	1,903,656	29,560	1,614,941
Germany	6,094	366,456	4,438	299,701	59,235	3,435,746	38,655	2,466,061
Norway	6,681	519,580	4,827	373,426	49,217	3,416,648	42,302	3,294,130
Sweden	21,601	1,239,362	18,383	1,135,908	249,312	13,830,718	181,698	10,934,905
Canada	28,289	1,843,178	32,095	2,207,618	225,618	14,638,150	269,053	17,361,741
Other countries	4,180	234,158	1,353	83,038	22,804	1,313,312	18,395	962,336
Sulphate pulp, unbleached (Kraft pulp) .....ton..free	20,206	1,166,314	27,295	1,750,856	215,500	12,073,209	200,587	12,274,039
Imported from—								
Finland	,266	66,436	154	8,297	10,026	487,383	9,609	527,713
Norway	779	41,583	1,029	66,337	9,254	498,074	6,437	401,243
Sweden	6,659	349,973	12,718	785,847	113,601	5,932,295	94,472	5,503,848
Canada	11,360	700,567	13,275	884,429	79,261	4,978,943	86,859	5,623,770
Other countries	142	7,755	119	5,946	3,358	176,514	3,210	217,465
Sulphate pulp, bleached .....ton..free	351	25,911	844	52,405	26,646	1,486,077	13,799	788,582
Other pulp .....ton..free	108	10,581	139	6,820	1,171	77,038	615	48,073

CRUDE PAPER STOCK

Rags for paper stock .....lbs...free	57,351,538	1,675,992	34,171,445	851,183	397,805,857	10,319,201	350,758,680	9,230,174
Waste bagging, waste paper, etc.....lbs...free	10,732,444	174,198	9,644,563	181,159	80,285,530	1,071,490	89,071,510	1,640,708
Old rope and all other paper stock...lbs...free	5,040,290	273,829	5,993,781	340,615	56,527,876	3,021,536	46,553,829	2,170,781

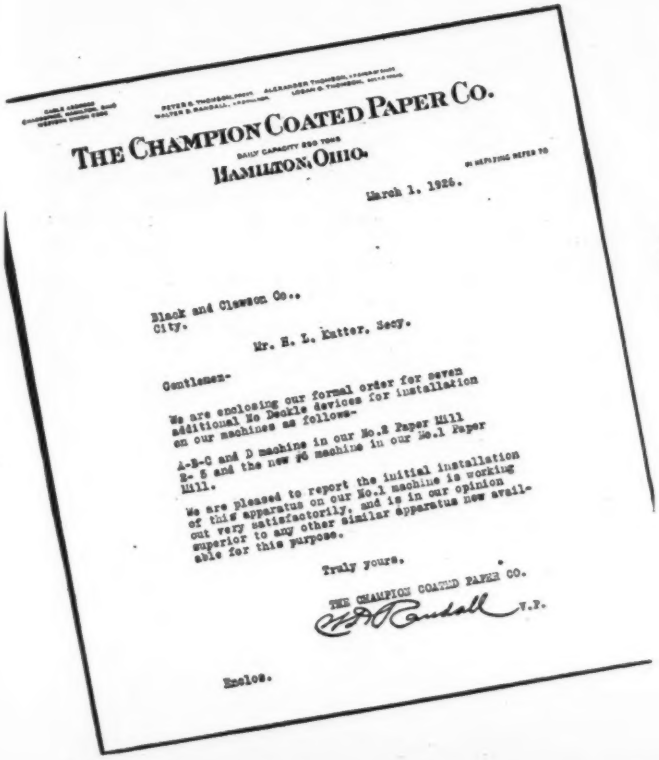
CHEMICALS AND OTHER PAPER MAKERS' MATERIALS

Colors, dyes, stains, color acids, and color bases, n. e. s. .....lbs...dut.	425,172	565,709	365,017	406,483	2,892,504	3,933,465	3,273,688	3,600,079
Imported from—								
France	3,796	7,935	36,012	43,181	72,589	108,008	101,024	136,920
Germany	217,548	286,030	156,423	152,035	1,495,181	2,124,931	1,584,575	1,732,859
Italy	29,194	33,349	11,363	11,806	113,699	157,705	72,731	84,437
Switzerland	111,961	164,731	134,908	164,140	886,867	1,184,523	1,253,777	1,286,607
United Kingdom	17,574	17,762	13,517	14,511	101,655	93,612	85,569	77,920
Other countries	45,099	55,902	12,794	20,810	222,513	264,686	176,012	281,336
Casein or lactarene .....lbs...dut.	1,502,168	114,795	1,800,395	158,025	10,957,544	785,731	10,346,673	953,007
Kaolin, china, and paper clay.....ton...dut.	35,467	343,921	17,301	174,270	201,144	1,999,868	195,820	1,938,203

(Continued on page 50)

Throw out your deckle straps!

Save your wires and increase production



THE CHAMPION COATED PAPER CO.

DAILY CAPACITY 250 TONS

HAMILTON, OHIO.

IN REPLYING REFER TO

March 1, 1926.

Black and Clawson Co.,
City.

Mr. H. L. Kutter, Secy.

Gentlemen-

We are enclosing our formal order for seven additional No Deckle devices for installation on our machines as follows-

A-B-C and D machine in our No.2 Paper Mill
E- F and the new #6 machine in our No.1 Paper Mill.

We are pleased to report the initial installation of this apparatus on our No.1 machine is working out very satisfactorily, and is in our opinion superior to any other similar apparatus now available for this purpose.

Truly yours,

THE CHAMPION COATED PAPER CO.

W. P. Randall V.P.

Enclos.

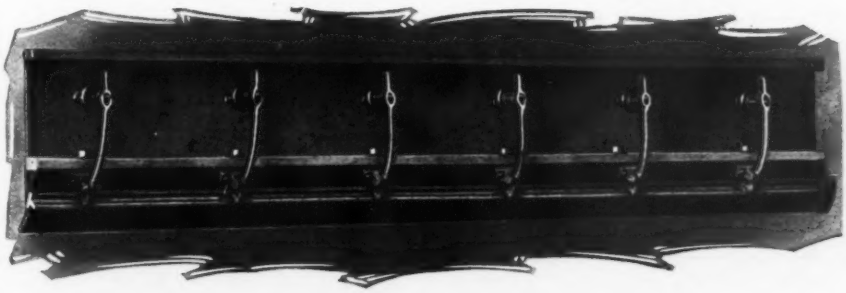
Champion Adopts "No Deckles" on seven machines

Mill after mill is adopting this simple, trouble-saving equipment that ends every operating annoyance for which deckle-straps have heretofore been responsible. Read Champion's letter, and write for data and prices on installations for your own machines.

The BLACK-CLAWSON CO.
Hamilton, Ohio
Established 1873

Export Office
15 Park Row, New York City

Builders of Highest Quality Paper and Pulp Mill Machinery.
Patentees and sole builders of Vertical Dryers.



The Wentz "No Deckle" Device consists of a very thin rubber ruler five to eight feet long resting at an angle on the wire. This rubber ruler is clamped against a triangular brass bar and is easily adjusted or replaced. No water spray is used in connection with this device. The equipment is designed to bolt to the under side of old deckle frames and extends beyond the first slice toward the breast rolls. It makes a perfectly tight joint with the apron. Where a high slice or other stock inlet is used, the device can be supported from the side rails.

BLACK-CLAWSON

"NO DECKLE" DEVICE

Built with Machine-Tool Accuracy

PAPER AND PAPER STOCK IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page 48*)

PAPER AND MANUFACTURES OF	February 1925 Quantity	February 1925 Value	February 1926 Quantity	February 1926 Value	Eight Months Ending February 28 1925 Quantity	Eight Months Ending February 28 1925 Value	Eight Months Ending February 28 1926 Quantity	Eight Months Ending February 28 1926 Value
EXPORTS—PAPER								
Paper and manufactures (total)	.....	1,573,034	.....	2,083,283	.....	14,827,831	.....	16,544,724
Printing paper—								
Newsprint paper ....lbs.	3,749,093	175,262	2,830,646	131,644	22,602,950	1,125,937	29,946,420	1,358,670
Exported to—								
Canada	94,610	7,369	14,847	840	522,881	39,468	491,866	[illegible]
Central America	106,624	5,383	90,537	4,467	471,997	26,355	1,034,039	52,669
Mexico	142,779	6,371	71,444	4,663	1,283,377	66,798	1,042,325	57,496
Cuba	1,781,692	75,288	385,745	16,530	10,205,285	440,260	7,495,528	310,673
South America	910,375	47,504	774,804	35,948	4,144,825	206,173	4,406,879	207,846
China	6,771	504	565,326	29,705	2,092,242	151,063	6,231,867	285,528
Philippine Islands	514,146	23,073	491,888	21,115	2,933,660	135,939	3,811,179	168,892
Other countries	192,096	9,770	436,055	18,376	948,683	59,881	5,432,737	242,128
Book paper, not coated ....lbs.	1,038,106	117,459	1,013,089	108,205	13,221,935	1,428,950	11,088,034	1,199,476
Exported to—								
United Kingdom	8,353	1,354	9,000	1,498	279,929	60,508	73,946	12,791
Canada	128,242	15,100	233,256	25,625	989,780	123,888	1,365,833	163,967
Central America	29,092	3,165	43,950	4,404	403,222	43,936	463,607	47,126
Mexico	179,320	19,465	71,521	9,295	1,727,212	191,758	1,178,623	131,527
Cuba	173,944	20,246	132,243	14,991	2,701,132	278,824	2,479,902	242,807
Argentina	18,316	3,524	25,714	2,515	394,791	43,714	475,999	55,502
Brazil	28,150	3,494	.....	.....	244,680	30,690	137,390	23,991
Venezuela	27,336	2,808	48,598	6,685	279,219	31,816	587,045	56,506
Other South America	81,158	7,923	47,836	6,064	894,293	98,761	907,377	87,247
China	46,061	6,941	160,936	13,193	3,328,421	302,461	947,407	130,931
Philippine Islands	162,584	14,806	102,499	9,215	845,966	81,642	1,173,042	104,595
Australia	42,477	5,321	80,119	8,503	341,297	37,996	351,526	38,009
Other countries	113,073	13,312	57,417	6,217	791,993	102,956	946,337	104,477
Cover paper ....lbs.	96,033	19,406	80,804	16,459	651,820	126,141	850,502	154,664
Grease-proof paper and waterproof paper....lbs.	122,052	13,416	165,385	23,304	943,130	110,830	1,419,104	205,336
Wrapping paper ....lbs.	1,968,067	159,721	1,709,027	142,311	17,025,718	1,324,714	19,698,882	1,420,726
Surface-coated paper ....lbs.	85,716	16,759	541,451	74,328	2,154,698	305,909	3,432,425	458,752
Tissue and crepe paper ....lbs.	259,223	69,132	252,152	66,512	2,202,100	602,771	2,611,094	665,720
Toilet paper ....lbs.	251,501	27,500	418,503	50,254	2,821,283	343,788	3,192,248	385,398
Paper towels and napkins ....lbs.	58,862	11,080	107,592	16,557	844,941	139,417	1,329,369	187,806
Box board ....lbs.	726,471	25,393	2,343,242	70,044	41,496,908	57,220	22,365,131	736,163
Bristols and bristol board ....lbs.	104,496	13,530	96,349	12,382	526,140	65,929	890,436	104,057
Other paper board and strawboard ....lbs.	1,876,869	99,470	3,117,186	187,830	38,278,581	1,461,179	21,447,909	1,127,265
Sheathing and building paper ....lbs.	781,197	34,248	774,963	36,385	6,906,532	333,527	8,567,121	392,736
Wall board of paper or pulp....sq. ft.	764,261	27,056	2,201,964	72,641	9,932,662	350,704	10,221,510	347,107
Blotting paper ....lbs.	210,597	24,445	220,856	27,967	1,718,114	203,810	2,028,829	252,686
Filing folders, index cards, and other office forms ....lbs.	48,267	15,668	66,462	19,272	317,423	103,211	523,438	162,203
Papeteries (fancy writing paper) ....lbs.	29,943	9,803	24,838	8,558	332,784	112,933	396,174	140,916
Other writing paper ....lbs.	267,027	39,937	535,274	125,269	2,246,059	372,829	4,179,085	720,395
Cigarette paper and books ....lbs.	15,560	5,190	111,007	23,073	337,437	115,200	388,690	110,056
Paper hangings (wall paper) ....yds.	3,997,314	88,551	4,062,760	83,965	16,462,229	391,687	13,857,025	355,485
Paper bags ....lbs.	745,272	64,368	1,138,475	111,930	7,161,912	614,643	8,607,743	778,317
Boxes and cartons ....lbs.	733,332	65,802	1,378,211	94,969	8,620,362	771,448	12,556,777	927,413
Envelopes ....lbs.	150,976	29,397	177,089	39,307	1,655,033	314,265	1,568,157	310,919
Vulcanized fiber, sheets, strips, rods, and tubes ....lbs.	313,452	91,281	505,212	130,746	2,724,858	872,778	3,775,142	1,110,111
Manufactures of vulcanized and indurated fiber ....lbs.	46,487	19,704	22,691	12,234	282,889	127,174	300,319	110,744
Cash-register and adding-machine paper....lbs.	121,062	11,507	161,545	16,415	862,698	89,818	1,144,294	119,561
Other paper and paper products ....lbs.	.....	297,931	.....	380,722	.....	2,961,019	.....	2,702,042
WOOD PULP AND PAPER STOCK								
Sulphite wood pulp ....tons	1,951	105,288	1,451	86,325	15,064	897,550	15,363	976,379
Soda wood pulp ....tons	137	13,911	153	16,842	1,203	114,877	1,657	149,681
Other wood pulp ....tons	698	162,553	696	162,679	5,856	683,508	4,850	548,247
Rags, and other paper stock ....lbs.	10,642,515	179,073	13,885,200	213,360	83,033,515	1,349,916	115,391,493	2,183,844
PAPER AND PULP MILL MACHINERY								
Paper and pulp mill machinery ....lbs.	221,652	54,427	719,554	168,520	5,401,123	1,131,720	6,546,745	1,467,636

Carthage Sulphite Co. Wins Coal Case

CARTHAGE, N. Y., April 12, 1926.—A telegram received by Kilby, Norris & Smith, Tuesday, stated that the decision of Appellate Division, Fourth Department, in the case of Morris Run Coal Company, Inc., against Carthage Sulphite, Paper & Pulp Company had been affirmed by the Court of Appeals.

The action was commenced in December, 1922. It arose out of the purchase by the sulphite company from the coal company, of 10 carloads of anthracite coal screenings on August 16, 1922. Upon arrival of the screenings in question at Carthage, the sulphite company refused to accept the coal on the ground that it was of poor quality and would not burn. The action was brought to recover $2,014.96, the purchase price of the coal. The action was tried in the Supreme Court at Watertown in March, 1923.

The evidence on behalf of the defendant, sulphite company, was to the effect that on arrival of the first carload of screenings, the company attempted to use it in its furnaces, but found that it would not burn and put out the fires. It was found to contain quantities of clay and rock and therefore rejected all the screenings. Three carloads were sold by the railroad company and four carloads were dumped along the railroad right of way as ballast for its tracks.

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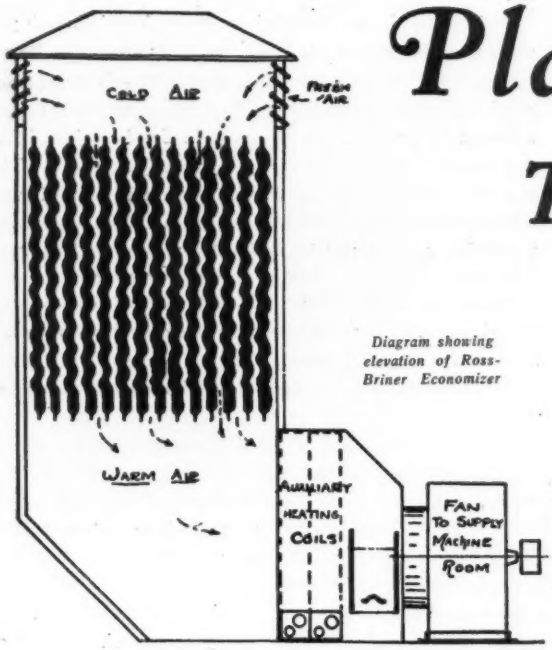

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HENRY J. BERGER, Editor

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PROGRESS IN USE OF PINE WASTE

The past year closed on the successful conclusion of development work in the utilization for wood pulp of a class of wood that has given to the world practically none of the wealth that is locked up within itself. The material referred to is the stumps, branches and refuse left from the yellow pine lumbering operations of the southern states of the union. Vast quantities of these remains of former operations exist in favorable locations, and to a limited extent they have been drawn upon to yield the naval stores products of rosin, turpentine and pine oil, but the naval stores industry has never carried their operations further than the extraction of those products.

The cellulose which remained has either been converted into charcoal or has been used as fuel in carrying out the extraction process. This has put a very low value on that part of the material which basically has the greatest value, namely, the cellulose as a paper making substance.

Many obstacles have been encountered in bringing the conversion of these stumps, etc., to the practical conclusion of making paper from them.

Through the cooperation of one of the great naval stores operators of the South, who are one of the few that are using stumps for the production of their products, a demonstration was made during the past year on the conversion of their spent wood into pulp and paper. The demonstration revealed the practical and commercial possibilities of turning into a valuable product that which was only of nominal value, and in a great measure a burden to the extraction industry.

It further developed the tremendous possibilities of wealth and conservation now lying dormant in the areas of cut-over forest lands, where pine stumps stand as a barrier to agricultural pursuits, or successful reforestation.

This practical demonstration was the culmination of a research and application of principles to pulp manufacture that dates back to the autumn of 1906. At that time Mr. Joseph H. Wallace, now President of Pine-Waste Products Inc., was engaged in purchasing a large quantity of southern pine lumber for a foreign shipment, and he was greatly impressed with the extravagant waste incidental to the manufacture of finished lumber in the southern mills. He resolved then that his efforts of the future would be devoted to returning to economic value the waste that existed in that industry.

Business relations with prominent Swedish and English pulp and paper manufacturers made it possible to arrange for a demonstration of the sulphite process on southern pine mill waste and round wood, and a full scale commercial operation was undertaken on a shipment of southern pine to a mill in Sweden where both kraft and bleached sulphite pulp were successfully produced. The pulp was then transferred to an English paper mill where it was converted into both kraft and bleached papers. The experiment was a complete success, and its final outcome was the building of the Moss point Mill of the Southern Paper Company.

Spurred on by the commercial success of that enterprise, he attacked the land clearing problem and the conversion of stumps and lightwood to pulp and paper. Here the olo-resin products of these trees became a greater problem than with the mill waste and tree stems.

Preliminary extraction of naval stores seemed the only feasible and practical way of relieving the pulp process of the large amount of resinous matter that accompanied the stump portion of the tree. Step by step as various methods of extraction and improvements in pulp making developed, they were tried out in a semi-commercial plant erected for the purpose of investigating the subject. Evolution of apparatus continued along with the research and development of new ideas. Acquaintance with the art of extraction as well as pulp making, from the patent standpoint as well as from existing operations, was imperative and produced much valuable information. The accumulation of knowledge, with the experience gained in and out of the experimental laboratory, through these years of applied effort, has brought the subject to the point where it is now waiting its application to the industry.

It has been proven that the wood can be prepared in a way that makes it entirely suitable for extraction of naval stores at good efficiency, and leaves it entirely suitable for pulp making without impairing the strength qualities of the wood fibre.

It has also been shown that the value of the paper making material in stumps is more than twice that of the naval stores accompanying it.

Further, that one ton of stump wood will yield the following weight of products:

Oils	9.88 gallons	72.0 lbs.
Rosin		286.0 lbs.
Pulp		418.0 lbs
Total		776.0 lbs.

Nearly 40 per cent of the weight of the stump is recoverable as valuable finished products, and the remaining 60 per cent is largely water and non-cellulose, carbonaceous residues, the latter furnishing combustible material used in the process of chemical recovery.

Extraction of naval stores conditions the wood and greatly improves it for a subsequent pulping process. It insures a more uniform quality of pulp because the wood is rendered more uniform in all its properties by reason of the extraction treatment.

In the extraction methods recently adopted, the fiber does not undergo loss in strength by preliminary extraction treatment. It is, however, rendered more permeable to receive the digesting liquors, and hence more complete and uniform digestion ensues.

Here are two established industries, each profitable in their respective fields. The larger one producing a more valuable product is seeking the by-product of spent wood from the other. What is more logical than for the two to come together?

In doing so oppportunities arise for lowered costs in both. Power and steam are important adjuncts to both. Intelligent use and distribution of steam is made to produce power before it is consigned to the process of extraction, pulp cooking, evaporating, drying, etc. The two processes so fit together that the by-products of the one are what the other is seeking.

These things unfold possibilities in reduced cost of operation for each that have never before been offered to either.

Study, research and experimentation on this great subject have brought out many features that are patentable, and protection has been granted by the U. S. Patent Office during the past year on the salient features of the processes and products.

Resent Calling Off of I. P. Co. Strike

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., April 12, 1926.—The recent action of the executive board of the International Brotherhood of Papermakers in officially terminating the strike against the International Paper Company has precipitated a situation within the organization which may have far reaching results. Local unions in the International Paper mill towns are highly incensed over the executive board's action. Maurice T. Jones, chairman of the allied trades of Corinth, N. Y., where one of the large I. P. Mills is located, has notified William N. Smith, president of the Brotherhood, that unless the executive board's action is rescinded the Corinth papermakers will notify all paper manufacturers in this country and Canada of their willingness to co-operate in establishing the open shop.

Mr. Jones in a public statement said that of the original strikers 5,000 are still out and determined to continue the strike against the I. P. Company. He said that when the Brotherhood officials visited the various strike locals the strikers were told that "in case of strike against other companies this spring they wanted the I. P. strike out of the way so that new strikers could get employment in the International mills and that if the manufacturers fought them this spring the organization would go out of existence."

President Smith at headquarters here declared that the officers of the various unions involved in the I. P. strike had not adopted any high handed methods. The vote to call off the strike, he said, was unanimous at the Montreal conference.

It was learned here today that the International Brotherhood of Papermakers while calling off the strike had not notified the International Paper Company officially of its action. The ultimatum of the Corinth papermakers gives the International officers six days in which to rescind their action in calling off the strike with the distinct understanding that unless the motion was rescinded the Corinth union would co-operate in an open shop movement.

Austria Increases Paper Production

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 14, 1926.—The output of both paper and pulp in Austria last year was substantially above that of the previous years. The largest increase was in the production of chemical pulp which shows a gain of from 149,350 metric tons in 1924 to 175,660 tons last year. The production of paper, which amounted to 190,980 tons and of board, which amounted to 49,640 tons, was 10 per cent above that of 1924, and a similar increase was registered in the output of mechanical pulp which is reported at 89,090 tons.

Bird & Son Observe 130th Anniversary

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 12, 1926.—So quietly and simply was it observed that comparatively few people in New England realize that the 130th anniversary of the Bird organization has just passed, but 1800 fellow workers of Charles Sumner Bird, under the inspiration of the Old Timers' Club, took the trouble to sign their names to a hand-lettered, illuminated testimonial to their employer, which the recipient considers the most touching evidence of affection and loyalty he ever received. The Old Timers' Club is made up of those who have worked for the organization for 10 years or more, but it contains members who have been 50 years with the institution and they signed the roll in order of seniority.

The Bird organization stands almost unique among the New England organizations in that its executives are residents of the town in which their principal plant is located and actively identified with its civic interests. Through all national industrial periods of distress the Bird plant has continued to expand and today it is one of the three largest shippers on the New Haven, approximately 1200 cars passing in and out every month, three locomotives being detailed all the time for the daily work, while the express and steamboat shipments are in proportion. Recently orders from Florida alone required the use of 70 cars.

Some idea of the manufacturing volume is gained when it is understood that in the roofing division alone 356 million square feet are made during a year, or over 67 thousand miles of product one foot wide, while in the floor covering division almost 100 million square feet are made. In the box division over 120 million individual boxes are turned out annually.

Charles Sumner Bird, the present head of Bird & Son, Inc., after his graduation from Harvard in 1877, entered the business that was then conducted under the name of F. W. Bird, making paper products. All transactions were handled by mail. There were no salesmen. The products were high in quality, but limited in number and included such strange sounding articles of paper base as "Tarred Hardware" used for wrapping nickel and silverware and other hardware, to prevent tarnishing and "Tack Paper" the forerunner of the now familiar tack box. Today, Mr. Bird presides over one of the largest industries in New England, which includes plants at East Walpole and Norwood, Mass., Hamilton, Ontario—Phillipsdale, Rhole Island—Pont Rouge, Quebec, and a roofing plant at Chicago, Illinois.

In honor of his long period of service as their directing officer, there has just been presented to Mr. Bird a testimonial book containing the names of nearly eighteen hundred fellow workers at Bird & Son, Inc., commemorating the 130th anniversary of the founding of the business in 1795. The gift moved Mr. Bird to send a communication to his workers in which he said:

"It is difficult to find words to express adequately my gratitude for the memorial which I have just received from you and your associates. There is nothing that you could have done that could have meant so much to me as a sentiment of affection and loyalty expressed in this letter.

Sulphite Mill Well Under Way at Kapuskasing

[FROM OUR REGULAR CORRESPONDENT]

KAPUSKASING, Ont., April 12, 1926.—The sulphite mill extension here is well under way at the present time. The buildings are to be up by June 1 and equipment in by November 1. The groundwood and paper mill will follow in the course of the summer.

It is understood that the mill is to be built at Kapuskasing and the power developments at Smoky Falls at once and later on other rapids nearer Kapuskasing.

The right of way for the railroad has been cut to Smoky Falls. The steel and ties will follow in short order.

The town is growing up overnight; three story hotels and buildings of all kinds are going up. The town is being flooded with all types of men, six men to every job open.

THE Book, Writing and Lithograph papers manufactured by The Northwest Paper Company are made entirely of chemical pulp produced at the Company's own mills. Their manufacture is in no way dependent upon the market for pulp or old papers. A high standard of quality and uniformity is thus maintained.

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Patent Applied For

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The Color Standards, covering the ranges of any three indicators, such as Bromcresol Purple, Bromthymol Blue and Phenol Red, are placed in the revolving drum, the Color Standards alternating with ampoules of distilled water.

The material to be tested is placed in the three test tubes, shown in the block on the front of the set, and measurements made in the usual manner, revolving the drum until a match with the standards is obtained. The pH value is then read off directly.

Set complete with 40 watt Mazda lamp, ground glass and Daylite screen, 3 sets of Color Standards, 27 ampoules of distilled water; together with 3 bottles of indicator solution, 3-0.5 ml. pipettes, and 18 graduated test tubes in a separate case, f. o. b. Baltimore, Md. **$75.00**

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AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

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(To be concluded)

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Water for Paper

By Jesse E. Minor, Ph.D.*

The changes which occur in the properties of cellulose fibers in the process of papermaking are so largely related to the properties of the various waters with which the fibers are in contact during the papermaking process that it has seemed worth while to discuss water from the standpoint of its relation to the papermaking process.

While it is the province of the Cellulose Committee of the American Chemical Society to discuss the *molecular* structure of cellulose, we are concerned with the *fiber* structure and the changes which occur in the fiber structure during the process of papermaking. Before discussing the effect of water upon this fiber structure, let me first briefly review a few facts with reference to the fiber which may throw light upon the papermaking problems.

Definitions of Fiber

In former papers I have adopted the definition of a fiber as "A sponge-like structure of colloidal particles held together by residual valence," and recent work has only enlarged that definition. From the work of such men as Hess, Heuser, Schwalbe, Wislicenus and others, it seems certain that the cellulose of the fiber or cotton and of wood is identical, at least as to its being a molecular aggregate of hexosans with possibly a residue of highly adsorbed, insoluble pentosans. Each of these hexosans, of empirical formula $C_6H_{10}O_5$, possesses on its surface in a localized way positive and negative residual valence and it is these residual affinities which cause the strong aggregation tendency and the peculiar definite structure formation seen in the fiber. Just as the play of surface tension causes the resistance of liquid surface layers to wetting, so does the internal neutralization of this residual energy in the cellulose unit cause the usual inertness of fibers to reactions until some outside physical or chemical force disturbs the balanced surface energy of the fiber.

This idea of the structure of the fiber was very interestingly developed in some experimental work reported by Wislicenus and Gierisch in 1924. They argued that if the insoluble fiber were merely a physical complex of simple monosaccharides, then it should be possible through mechanical decomposition to gradually tear down the structure and separate the fiber into its water soluble units. Experimentally it is a difficult matter to carry out mechanical decomposition without some swelling, hydrolysis or oxidation or other decomposition through moisture or heat of friction. After numerous experiments they did succeed, by beating bonedry filter paper in a ball mill using glass balls with noduled surfaces, in breaking down the fiber structure to a mealy, slightly greasy feeling substance which, under the microscope, even in this dry form, showed a marked tendency to aggregate. The longer the beating was carried on, the greater was the tendency towards aggregation and the greater the percentage of soluble products in the product. By extracting this substance with water at 60 deg. Cent. they were able to show that long beating did increase the part soluble in water and even more so when the extraction was carried out at 100 deg. Cent.

This meal of Wislicenus, when subjected to tests for the usual properties of cellulose, showed that dry beating increased the absorption of methylene blue, did not change the iodine absorption, but increased the copper number up to three fold. Also the meal was much more susceptible to hydrolysis with dilute acid than was the original filter paper. While there was no indication of hydrolysis, there was no doubt but that the reactivity of the meal was much greater than that of the internally balanced fiber structure.

In any discussion of the effect of water on cellulose fiber structure, it would seem logical to divide the discussion into

1. The effect of pure water upon fibers.
2. The effect of the salts which occur as impurities in mill water on the process of changing raw fibers into paper construction.

Pulp fibers have a marked affinity for pure water which they take from moist air and hold tenaciously, a property associated with the hydroxyl group in the molecule. Absolutely bonedry fibers are brittle but, as pointed out by Wislicenus and Gierisch, airdry fibers are so tough and elastic that ball mill beating is without effect on the structure of the fiber. Wislicenus powdery particles made by dry beating, when wetted, swelled to large, transparent spherical forms. This would indicate that not more than a minimum of electrolyte was needed for the pure swelling process. Probably the function of strong electrolytes in hastening the mucilage formation consists in so disturbing the energy balance as to open up vulnerable points and permit of cellulose salt formation and ionization and the consequent more rapid and profound swelling.

Henser's Results

According to the Loeb theory of swelling discussed here two years ago, it is the ionization on the internal surface of the aggregate as soon as the water enters which creates an osmotic pressure which in turn expands the walls of the aggregate. Since then Vieweg has published his evidence of the existence of a sodium salt of cellulose and Heuser has made a number of alkali metal cellulose compounds. Heuser also made a careful microscopic study of the effect of alkalies upon swelling with interesting results. He found by measuring the fiber diameter before and after immersion in alkali that the same alkali at the same concentration always caused the same relative swelling but the amount varied with the kind and the concentration of the alkali, thus relating the process to a definite chemical compound rather than a pure absorption. Always the concentration which gave the maximum swelling gave a definite alkali compound. His results paralleled the hydration rule which says that ions with the smallest atomic volume hydrate the most in water. His results are interesting.

	Concentration for maximum swelling %	Maximum swelling %	One molecule can hold of water, mols.
Lithium hydroxide	9.5	97	120
Sodium hydroxide	18	78	66
Potassium hydroxide	32	64	16
Rubidium hydroxide	40	53	14
Caesium hydroxide	40	47	13
Hydrogen hydroxide			0

The formation of a definite compound means, in other words, the salt formation at every hydrogen ion point on the aggregate so that the aggregated salt is not contaminated with the unattacked cellulose units. There would seem from this work every probability that both osmotic pressure due to electrical potential difference inside and outside of the mass, and the hydration capacity of the alkali metal may function to control the rate and amount of swelling. It is interesting to note that while Heuser found no swelling of fiber when immersed in pure water, Wislicenus found that the powdery granules obtained from the fiber by dry beating rapidly swelled to transparent masses confirming the idea of the relation of fiber inertness to physical compactness.

This matter ot the relative effects of different alkalies on the rate and amount of swelling would seem to be of prime importance in the chemical aid to beating and leads at once to the study of the effect of various alkalies on beating. It would seem intersting to ascertain the relative effects of these same alkalies on hydrolysis and mucilage formation since they also play a part in the results attained by long beating.

The figures given by Heuser make it seem important that any hydrogen ions in washers or beaters will aid in controlling the process, although there is small doubt that a better knowledge of

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hydrogen ions in washers or beaters will aid in controlling the process.

In papermaking practice, the average variation in water impurities is so great and the buffer influence on the ionic conditions so complicates the problem that standardization of water for mill use is still very vaguely understood.

Erick Oeman in November, 1925, published results of pH studies in sulphite pulps and he reported that when he immersed sulphite pulp in dilute sulphuric acid of pH 3.53, the hydrogen ions were absorbed by the fibers leaving in the liquid a pH as high as 4.35, but when the pulp is washed, a small portion of these ions is received, the reaction being reversible, thus proving that it is not a neutralization of OH ions but direct, specific absorption or reaction. When the pulp was immersed in a weakly alkaline solution of pH 9.6, the hydrogen ions reacted with the hydroxyl ions forming undissociated water and leaving the pulp negatively charged. If the pulp has been acid treated, its isoelectric point lies between 5.5 and 6.0, but in the presence of hydroxyl ions, the isoelectric point is displaced towards the alkaline side. That is, pulp is amphoteric in nature, and whether it attracts to its surface acid or alkaline substances depends upon its previous history.

Positive and Negative Solutions

It is most probable that the cleansing of stock is best done by contacting alternately positive and negative solutions. In alkaline condition the swelling causes an opening up of the fiber surface, but the surface is adhesive in nature, not hard and clean as when in acid solution. Hence the strong alkaline charge in the rag boiler for opening up the fiber surface, then the slightly acid wash to eliminate the greases, soaps, and other surface contaminations, then the alkaline bleach followed by a weakly acid drainer wash. Mill tests have frequently verified the greater cleansing from washing at a water of pH 5 than at pH near 7 and the acid washing after bleaching washes away lime salts and aids in the drying and firmness of the stock. Brightening of the stock by the use of alum or weak acid or the use of liquid chlorine gives as good results provided there is no embedded coloring matter remaining which requires the alkaline treatment for contact. Sulphite pulp which has been acid cooked should wash satisfactorily in neutral water but sulphate pulp, like rags, requires acid washing for cleansing and it is probable that the production of a pure white sulphate pulp lies in the correct acidity for washing.

Since rosin size is negatively charged, it would seem as if it should be possible to fasten it upon the fiber by the use of acid alone and some laboratory experimenters have reported good results therefrom. The difficulty lies in the fact that hydroxyl ions, besides changing the sign of the charge, cause the fibers to swell whereas the acid ions cause them to contract. In order to firmly fix the positive charge on to the surface, it is necessary to beat for sometime in an acid water which fact would so harden the surface as to decrease the number of points of contact between positive cellulose and negative rosin with a resultant loss of adhesion. If the beating is done in an alkaline water, the swelling has opened up the surface allowing many points of contact upon which, by the mediation of the positive alumina, the rosin may be firmly fixed. The slight acidity of the alum also aids in placing positive charges on the fibers.

The importance of maintaining neutrality to slight acidity at the headbox is well established and is based on the fact that an excess of free acidity in the water gives a positive charge to the pulp and tends to give to the finished paper a brittleness rather than the desired tough elasticity. On the other hand, too much alkalinity prevents the alumina formation and leaves rosin soap in the backwater.

While it seems beyond question that the beating of pulp is related to the hydrogen ion content of the water, there are a number of complications which may be related to the mineral salt content of the water and the electrical charges carried thereby.

Among papermakers there is a traditional fear of hard water and yet many succeed in alum-treating it very satisfactorily. When used for washing wood or rag stock, the lime salts of hard water deposit calcium resinates or lime salts of textile greases which gather into the most objectionable masses on washer sides and aprons and are usually only eliminated by the use of some emulsifier like glue, some partial solvent like kerosene or by acidifying the wash water. Sutermeister says that water which is very hard because of the presence of calcium bicarbonates may be injurious to sizing but calcium sulphate is not so. I should feel like modifying this statement to read that of all the lime salts found in waters, calcium sulphate is the least harmful. In boiling, bleaching or furnishing an engine, lime salts are introduced other than through the water.

Sometimes lime salts are actually beneficial as in protecting a furnish from absorbing other worse impurities out of the water. For instance, in using a mill water which carried ferrous iron it was found that rags which had been cooked with lime and washed in this iron-charged water carried less subsequent iron discoloration than rags which were furnished directly to the washer without the lime cook.

In many cases lime is recommended for water treatment where excess alkalinity is required for alum treatment. Under ideal conditions, especially if the treated water is carried slightly acid, this treatment should not add lime salts to the effluent. In practice it frequently does so and should be carefully supervised. Boothal is said to contain only calcium carbonate and to be self-regulatory as to alkalinity and to carry *no* lime salts in the effluent.

Magnesium salts are rarely in great abundance in water and then the lime salts are always more abundant. Some rags such as the coated silesia rags, give an abundance of magnesia to the water. The effect of magnesia salts in beater water is much more detrimental to sizing than a similar amount of lime salts.

Iron in water is known to be very detrimental to papermaking. If the iron is in the form of a ferric salt or colloidally dispersed ferric hydroxide, it is quite easily removed by alum treatment because of the marked affinity of alumina for ferric hydroxide and the fact that both alum and ferric hydroxide precipitate at about the same pH value. If the iron is in the form of a ferrous compound, its removal is much more difficult unless it is first oxidized to the ferric form since ferrous iron does not flock until the pH is great enough to dissolve alumina flocks. Also, since ferrous iron salts in solution are colorless, unless definitely suspected and searched for, they may be overlooked. If a water laden with ferrous iron is used for washing rags or wood pulp, the fibers very readily concentrate the iron on their surfaces, probably forming some definite compounds therewith, indicated by the slowness with which the brown color develops after the addition of bleaching agents. In the case of rags which are dropped into a compact drainer mass, the top layer of a washer lot may be colored brown but the greater portion of the stock remains a pure white while undergoing a progressive softening in feel, loss of fiber strength for beating and increase of Fehling reduction. Probably any ferric salt formed is reduced to the ferrous form at the expense of the fiber causing the formation of oxycellulose.

Iron Laden Rags

When iron-laden rags are furnished to a beater, it is not possible to wash out this iron as easily as lime is washed out. The amount of iron in the liquid increases very slowly until the friction develops considerable heat, possibly due to the fact that the iron is attached to these soluble degradation products of cellulose since even here the iron in the beater liquor is mainly in the ferrous form.

It is well known that many organic reactions are catalyzed by the presence of iron salts and it is quite possible that the iron acts as an oxygen carrier to the cellulose but that the oxidation of the cellulose is a more rapid reaction than the oxidation of the iron thus maintaining the greater portion of the iron in the ferrous form.

When alkaline rosin size is added to a beater containing ferrous iron in solution, this iron is deposited on the beater and thereafter in the chest, on the machine, and even in the loft, a progressive loss of color is apparent as oxidation slowly proceeds.

Also, the deposition of rosin size is apt to be much more uneven and cockly in effect.

It is well established that inks which contain iron will cause paper brittleness more markedly than inks without iron. In general the papers which contain iron discolor in sunlight more markedly and more quickly than those which do not contain iron.

Manganese in water is not so well known but where it occurs it is equally to be feared as the iron. Many soils contain manganese, therefore it is sometimes found in deep well water, in surface water and in waters containing such trade waste as wire mill dumpage. This manganese occurs in the water usually in the form of colorless manganous salts and is probably not accumulated during the washing of stock to the same extent as is iron. But when it contacts an oxidizing agent like bleach, it is quickly changed to the very dark brown dioxide of manganese which is somewhat adhesive in nature and, especially in the absence of marked water acidity, it unites with the calcium chloride from the bleach to form a cementing material apt to clog drainer bricks and to hold moisture and bleach on to the drainer rags thus hastening deterioration. When as little as 2 parts per million of manganese salt is added to beater wood pulp in a laboratory experiment, then bleach added and the time to drain compared with a similar test without the manganese, it is found to take nearly three times as long to drain and the compact mass retains its test for bleach several times as long as does the mass from the test without manganese.

In the beater this manganese is not given up as easily as is the ferrous iron and, therefore is only found in the unfiltered milky liquor, indicating that it is only attached to the coagulated masses of fiber disintegration. In comparative laboratory tests, manganese seems much more detrimental to the stability of rosin size milk than does ferrous iron but in the presence of lime salts this effect is irregular. The fact that manganese does not go into solution in the beater liquor, even when hot, prevents any marked effect upon sizing or color except the discoloration as seen on the fibers as furnished to the beater due to the oxidation during the bleaching action.

One other source of great papermaking difficulty is often overlooked and that is the growths of bacterial and other forms of growths in surface waters, especially when contaminated with organic waste. One of the most troublesome of these growths is of the Crenothrix and Cladothrix types which in water which is laden with organic matter and iron or manganese and is slightly acid, grow at tremendous rate and by their gelatinous coatings interfere with alum coagulation, as well as with sand filtration. Also, the gonidia or germ life of these growths are apt to be carried through into the finished water and in the conditions of darkness, slight acidity, iron or manganese and organic matter in the drainer or chest, may grow to calamitous proportion extracting iron from the water and depositing it on the fibers. The remedy for this is feeding to the water copper sulphate.

Analysis of Water For Use In Making of Paper

By Jesse E. Minor, Ph.D.*

In the Standard Methods for Testing Materials published in 1924, the entire subject of water is referred to the Standard Methods of Water Analysis of the American Public Health Association. This work is so complete that it is cumbersome for the average paper mill chemist, and its emphasis is on drinking water rather than on water intended for making paper. Therefore, it has seemed worth while to review and discuss the various phases of this report with a view of simplification and greater adaptation to paper mill use.

The following report deals with water intended for paper making other than the water used in steam boilers which should be treated separately.

I. Collection of Sample

1. Quantity of Water Required for Analysis.

The minimum quantity necessary for making the ordinary physical and chemical analysis is 2 liters. In special cases larger quantities may be required.

2. Bottles.

Jugs or metal containers should never be used for any samples. Glass bottles with ground in glass stoppers are to be preferred but cork stoppers covered with paraffin may be used.

Sample bottles should be carefully cleansed each time before using by treating with a mixture of sulphuric acid and potassium dichromate, then thoroughly and repeatedly rinsed with any clean water and finally rinsed with the water to be sampled. The stoppers and necks of the bottles should be protected from dust by tying cloth over them.

For shipment bottles shall be packed in cases with a separate compartment for each bottle and protected from breakage by heavy corrugated paper felt, excelsior or other packing material.

3. Time Interval Between Collection and Analysis.

In general the shorter the time elapsing between the collection and the analysis of a sample, the more reliable will be the results. The time allowed depends upon the examination to be made and other conditions.

The determination of dissolved gases, especially oxygen, hydrogen sulphide, carbon dioxide and fixed ions or radicals capable of being affected by these gases should be made at the source in order to be reasonably accurate. Only under very unusual conditions would such tests be necessary for a paper making water.

4. Representative Sample.

Care should be taken to obtain a sample that is truly representative of the water to be analyzed as from the center of an open stream or, if from a pipe, after running sufficiently long to insure thorough cleansing of the pipe. If the character of a water changes decidedly over a period of time, sampling should be done at stated intervals of 1, 2, 3, or 4 hours, and the outstanding impurities checked in each sample in order to determine the maximum and minimum contaminations and their time of appearance. Frequently in contaminated waters these excess amounts of contamination occur at regular periods of the day or week and a definite knowledge of this fact may enable the management to protect against them.

For a complete analysis of such a variant water, a composite sample of equal portions from each of the period samples should be made and tested.

II. Temperature

The temperature of a papermill water is of paramount importance. The colder the water used in a beater, the less will be the heating of the stock from beater friction and the less the danger of side reactions from impurities in stock or water disturbing the color, sizing, etc. Many papermakers find better results from the use of cold, hard spring water than from warm, soft surface water of equally as good color. Temperature tests should always be taken in a running stream of the water and should be recorded as degrees Fahrenheit.

III. Turbidity

For such mills as have a sedimentation or filtration system, the turbidity of a *raw* water is a matter of little importance. The turbidity of a water *as used* is only of importance as an indication of the presence of some impurity which should be tested for in itself.

IV. Color

The true color of a paper mill water is of paramount importance to a paper mill due to the tendency on the part of wet stock to extract small samples of colored impurities out of water and accumulate them upon the fibers. Every paper mill should possess

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an accurate set of platinum-cobalt color standards and a trained color man should make frequent and regular tests of the color of the mill water. Many otherwise unexplainable paper sizing, strength, color and ageing difficulties can be thus traced to water impurities.

The color of the original, unfiltered sample shall be called the Total Color and it shall include any color produced by substances in suspension or in solution. The True Color shall include only color due to substances in solution. Whenever the word "color' is used without qualification, it shall be considered as referring to the True Color produced by substances in solution.

After determining the True Color of a sample of water, the sample should be made slightly alkaline with ammonia or caustic soda and again graded for color. To another sample should be added some of the bleaching solution in use at the mill and then graded for color. In this way the changes in the color during the papermaking process and the presence of unsuspected impurities is sometimes revealed. For instance, ferrous iron is colorless in neutral or slightly acid water, but is colored brown with alkali or bleach, manganese is colorless in neutral water but colors brown in the presence of alkali and a much deeper brown in the presence of bleach or other oxidizing agents. Titanium salts become colored in the presence of reducing agents while the tannins and other river vegetable growths are colored by alkali.

METHOD OF TESTING COLOR.

For measuring and recording the True Color of a water, the Platinum-Cobalt method shall be considered as standard. For this a set of color standard Nessler tubes of clear colorless glass with polished bottoms and with 100 cc. graduations at a height of 40 to 50 cm. above the bottom shall be procured and color standard tubes shall be prepared by a capable chemist having colors of 0, 3, 5, 8, 10, and each multiple of 5 thereafter up to the maximum color encountered or up to 70. When not in use, tubes should be protected from evaporation and from dust. About once in 3 or 6 months, all tubes should be checked for color and, if necessary, renewed.

The color test consists in filling a Nessler tube with the water to be tested up to the mark as in the standard tubes and comparing the color with that of the standard tubes by looking vertically down through the tubes upon a white or mirrored surface at such an angle that light is reflected upward through the column of liquid. Waters having a color above 70 should be diluted with distilled water before making the comparison. Waters containing matter in suspension shall be filtered through filter paper or settled until all turbidity is removed. The results of color determinations shall be expressed in whole numbers and recorded to the nearest unit.

V. Odors

Odors in waters, cold or hot, are interesting since they are usually indicative of organic growth or sewage contamination or both. Certain odors identify certain organisms and a microscopic determination of the organism concerned is a valuable adjunct to the series of water tests. These odors are usually classed as,

Aromatic, from Diatoms and Protozoa,
Grassy, Moldy, from Cyanophyceae,
Fishy, from Chlorophyceae.

In papermill practice, the same treatment, namely copper sulphate or chlorine, is accorded to any odorous organic pollution of water. Therefore, the identification of the particular kind is only of interest in very especial problems.

VI. Nitrogenous Matter

The presence of nitrogenous matter in a water is usually indicative of organic pollution and is not usually of interest in papermill waters unless

a. Under the changes of the manufacturing process, they cause color changes.
b. They furnish food for the calamitous growth of organisms during the process but sterilization against the organism is more fruitful than removal of nitrogenous matter.

VII. Oxygen Consumed

The oxygen consumption of a water is of importance as being related to the incubation of organic growths and to the bleach consumption in the process. Practically all waters, especially surface waters, consume small quantities of bleaching powder. If much organic matter is present, as in contamination with swamp water or trade waste, the loss may be appreciable.

METHOD OF TESTING.

a—Heat 100 cc. of water with 10 cc. of dilute sulphuric acid and 10 cc. of standard potassium permanganate, then add 10 cc. of standard ammonium oxalate and titrate the excess with potassium permanganate.

b—(Sutermeister.) To 100 cc. of water add a known excess of standard calcium oxychloride solution, the amount being approximately determined by the use of starch-iodide papers and, after standing, titrate the excess with sodium thiosulphate.

VIII. Residue on Evaporation

This test should be made on any water intended for papermill use and occasionally on the water in use in a mill, especially if, for any reason, variation in the content of solids is suspected. Organic solids indicate vegetable contamination which may cause unexpected color variation and inorganic solids may cause sizing and finishing difficulties as well as color changes. The test, when applied to a raw water, will serve as a guide to the treatment which the water will require for purification and, when applied to the water as used, it will indicate the possible source of process difficulties.

1. TOTAL OR DISSOLVED SOLIDS.

For total solids use the original water and for dissolved solids use the raw water from which all turbidity has been filtered out. Evaporate 100 cc. in a weighed platinum dish on a water bath, dry at 180 for one hour, cool and weigh. A porcelain dish may be used and, where solids are low, a larger sample should be used. Report the increase in weight as Total Solids or Residue on Evaporation and express in parts per million.

2. FIXED SOLIDS.

Fixed solids which are white are probably silica, lime, or magnesia, whereas a permanent brown or black color suggests iron or manganese. Ignite the total solids in the weighed dish to a low red heat, cool, moisten with a few drops of distilled water, dry in the oven, ignite again to constant color, cool, weigh. The difference between the weight of the dish after ignition and that of the empty dish represents the Fixed Solids.

3. VOLATILE SOLIDS.

The Volatile Solids are calculated from the difference between the Total Solids and the Fixed Solids and represent the loss on ignition. It may indicate organic matter, shown by the temporary appearance of black carbon during ignition, or the volatile constituent of any carbonate, nitrate, or other component of the residue.

IX. Total Alkalinity

The alkalinity of a natural water represents its content of carbonate, bicarbonate, hydroxide and occasionally silicate, borate and phosphate. A polluted water may have other sources of alkalinity or it may be definitely acid from trade waste.

The Total Alkalinity is the total available amount of alkalinity obtained by finding the total amount of acid which it can neutralize. Titrate a 100 cc. sample with fiftieth normal sulphuric acid using Methyl Orange as indicator and report as parts per million of alkalinity. 1 cc. of acid used = 10 parts per million.

Some engineers recommend the use of Erythrosine indicator since the alkalinity thus obtained is more nearly that required to be neutralized before good alum flocculation can occur. The test is slightly more cumbersome than that using Methyl Orange. To a 100 cc. sample of water in a 50 cc. glass stoppered bottle add 5 cc. of neutral chloroform and 1 cc. of the Erythrosine solution. Then add gradually fiftieth normal sulphuric acid, shaking after each addition, until the chloroform, which is at first rose colored, becomes clear and colorless.

Since in most natural waters the difference between the alkalinity to Methyl Orange and that to Erythrosine is about — parts per million, some engineers use Methyl Orange for the test, then subtract 2 from the result before reporting. This is an empirical rule which in polluted waters would have no meaning.

X. Total Acidity

The Acidity of a natural water would represent its content of free carbon dioxide and mineral acids and salts, especially the sulphates of iron and aluminium.

For Total Acidity, titrate a 100 cc. sample with fiftieth normal sodium hydroxide using Phenolphthalein as indicator and report as parts per million of acidity. 1 cc. of alkali used = 10 parts per million. In the presence of the sulphates of aluminum or iron, this end point is indefinite. If the titration is performed when the sample is at the boiling temperature, the end point is clear and sharp, but any free carbon dioxide has escaped, making the results low.

For Free Mineral Acidity titrate a 100 cc. sample with fiftieth normal sodium hydroxide using Methyl orange as indicator and report as parts per million of free acidity. A more accurate method consists in calculating the acidity due to mineral salts from the known amounts of these salts and subtracting this amount from the acidity obtained by titrating a hot sample with sodium hydroxide and Phenolphthalein.

The Acidity due to Mineral Salts is most accurately calculated from the known amounts of these salts. For control work, the acidity due to mineral salts is usually considered as the difference between the results of the titrations of the hot sample with sodium hydroxide and Phenolphthalein and the cold sample with sodium hydroxide and Methyl orange.

XI. pH Value

Of recent years methods of determining the intensity factor rather than the total quantity of alkalinity or acidity has come into fashion and, since it is this factor, called the pH, which controls the flocking of alum in water purification, it is becoming more and more common in control work to test the pH rather than the total alkalinity or acidity of a water. This is done by adding to the water to be tested a definite amount of indicator solution and comparing the color attained with that of standard color tubes.

A very convenient approximate control of pH for alum treated mill water consists in adding a few drops of Brom-Thymol-Blue to a small sample of water. If the sample turns yellow, the water is carrying an excess of alum which dissolves some of the flock and is likely to carry some of the iron present into the treated water as well as aid in corrosion of pipes, etc. If the sample turns blue, the water is too alkaline for good flocking and is likely to be of high color and to cause slow passage through filter beds. The best flocking condition gives with this indicator a green to greenish yellow color, pH from 6.0 to 7.0. However, many papermakers who have raw water which does not contain an appreciable amount of iron prefer to use an excess of alum and carry a pH as low as 4.5. In this way they obtain an easier filtration, a very much better washing of rags or pulp and a greater and safer tolerance against colored water.

Because of the wide variation in most natural waters and the masking of pH values by buffer salts and carbon dioxide exchange, many chemists find it more satisfactory to control the chemical feed to a water by actual laboratory tests of the amount of alum required to cause coagulation in a 2 or 4 liter sample of water and from that calculate the feed requirements. This is done as follows:

Make up a solution of alum containing 4.53 grams per cc. when 1 cc. of this solution is added to one gallon of water it will be equivalent to adding 100 pounds per million gallons or 0.7 grain per gallon. Now into each of at least six glass jars put one gallon of raw water and to these jars add amounts of the alum solution which shall increase by increments of 0.1 or 0.2 cc., shake and stir well and let stand. In the case of waters to which alkali must be added with the alum in order to obtain sufficient flocks at a maximum flocking pH, the alkalinity of the water to Methyl orange should be tested, then the alkalinity increased to 8 in each test jar before adding the alum solution. If the correct range has been chosen for the alum feed, it will be found after three hours that there is a sharp line of demarkation between those samples that have flocked and those that are too alkaline for flocking. If not, the test should be repeated until that range is found. Now from the amount of alum fed to the jar which has flocked well with the least amount of alum, calculate an increase which will take care of variations in raw water and set the feed for the mill supply at that figure. From 20 to 100% more than that calculated from the minimum test jar should be fed, dependent upon the acidity required. Such a test should be repeated once a day, once a week or as often as deemed necessary to cover variations in raw water. Meanwhile the more frequently made control tests may be made by testing the total alkalinity of the pH value.

XII. Iron

Iron in natural waters or in those receiving industrial waste may be in the ferric or ferrous condition and may be soluble, colloidal or insoluble. Ferric iron is rarely in solution in appreciable quantities except with acid waters. Insoluble or colloidal iron is likely to be ferric. Iron in a paper mill water is especially detrimental due to the fact that fibers extract iron from water and accumulate it on its surface, giving a brown color and causing subsequent sizing, strength and color difficulties. For samples of low iron content, colorimetric methods are most satisfactory.

For control testing, fill two Nessler tubes, graduated at the 50 and 100 cc. marks, to the 50 cc. mark with test water and a third tube to the same height with distilled water. Now add to each tube 5 cc. of 1:1 HCl and shake; then to one test water sample and to the distilled water sample add from a 5 per cent solution of potassium permanganate, drop by drop until a permanent pink color is obtained: then to each of the three tubes add 5 cc. or 2 per cent potassium sulphocyanate. Shake and immediately titrate the distilled water sample with standard ferric iron solution until the color matches that of the non-oxidized test water sample. Read and record the amount of standard iron used and then continue the titration until the color of the distilled water sample matches that of the oxidized test water sample. Calculate as

Ferric iron=amount of standard iron required to match the non-oxidized sample.

Ferric iron=amount of standard iron required to match the non-oxidized sample.

Ferric iron=amount of total iron minus the amount of ferric iron.

It is important that the amount of acid be uniform in all samples and that the titration occur as soon as possible after the sulphocyanide is added since the colors vary with intensity and fade in light.

For the qualitative determination of small amounts of ferrous iron, a freshly made, saturated solution of Dinitrosoresorcinol is very satisfactory, since it gives a green color not easily masked by other coloring matter. The intensity of the color is so easily disturbed by several factors as to make the test of doubtful quantitative value.

XIII. Manganese in Water

Manganese in any form is turned brown by the action of bleaching agents, therefore manganese is very disturbing for paper color. Since it is not easily released from the surface of the fiber, it is not detrimental in sizing except in excessive amounts.

To test for manganese, use such amounts of water as shall not contain more than 0.6 parts per million of manganese. Add to it 1 cc. of concentrated nitric acid, boil down to 50 to 75 cc., than to the hot solution add, drop by drop, silver nitrate, (0.5 per cent) in 1:1 nitric acid until precipitation is complete, taking care not to use more than a slight excess of the reagent. Warm, if necessary for good coagulation. Filter twice through the same paper, if necessary for clear solution, wash, add 0.5 to 1.0 grams of ammon-

ium persulphate and heat. When hot add a little more persulphate, stir and look for increased color, thus making sure that all of the manganese has been oxidized. Color is complete in 10 to 5 minutes, Cool, pour into a Nessler tube and make up to 100 cc.

Meanwhile, prepare standards containing 0.2, 0.3, 0.4, 0.5, and 0.6 cc of standard manganese sulphate in 50 cc of distilled water, warm, add a few drops of silver nitrate, filter, add 0.5 grams of ammonium persulphate, heat until color develops and pour into Nessler tubes. Make up to 100 cc and compare in color with the tubes made from the test water. Insufficient silver nitrate leaves chlorides which interfere with the oxidation reaction. Too much silver nitrate gives a yellowish-pink hue to the permanganate. Overcome by adding a little sodium chloride solution.

The standard manganese sulphate solution may be made by dissolving 0.88 grams of potassium permanganate in about 100 cc of distilled water, acidifying with sulphuric acid and boiling to just discharging the color with dilute oxalic acid. After cooling, dilute to 1000 cc when 1 cc will equal 0.0001 gram of manganese.

The Physical Chemistry of Wood Cellulose Preparation

Professor Dr. Svante Arrehenius

Professor S. Schmidt-Nielsen of the Technical University at Trondhjem, during the Technical Week of the Norwegian Paper Industry in 1923, held an interesting symposium on the subject of some experiments carried out by his student, Engineer Johannes Bruun, dealing with the cooking of wood chips with solutions of varying constitution and temperature, about which a review is given in the Norwegian Paper Journal, No. 16, 1923.

The cellulose content of the dry chips was determined by chlorination as 42.5 per cent; the other 57.5 per cent was encrusting matters. A determined quantity of chips were placed in a given volume of the solution which was contained in a glass bottle which after closing, withstood a sufficient pressure (of about 9 atmospheres) and was heated in an autoclave for a determined time, 6 or 10 hours at 140, 160, or 170 deg. cent. The experimental results are listed in the following tables where the time of the experiment, the temperature and the constitution of the cooking solution as well as the quantity of the dissolved encrusting matters and the dissolved cellulose from 100 gram chips are given. Next to the observed numbers are written some figures calculated by me. In the calculation it has been assumed that the reaction velocity is proportional to the concentration of the cooking solution and for this reason obeys the law of monomolecular reactions. The temperature influence follows the well known law

$$r_1 = r_2 e^{A(T_1 - T_2)/T_2 T_1}$$

where r_1 and r_2 represent the reaction constants at the absolute temperatures T_2 and T_1. The characteristic constant A has a different value for the solution of the encrusting matters and the solution of the cellulose.

In the following tables are given the quantities of the dissolved encrusting matters, the quantities of the dissolved cellulose and the degree of purity of the cellulose obtained in percent, that is, 100 times the proportion between the quantity of undissolved cellulose and the total undissolved quantity.

In the calculation of the data in Table 1, I found the following mean values of the reaction constant *k* where the hour was considered as the time unit and 1 gram NaOH per cubic

TABLE 1
COOKING WITH SODA LYE

Temp. °C.	Time hr.	NaOH, 50 g per liter: Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose		NaOH, 75 g per liter: Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose	
		Obs.	Calc	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.
140	10	44.5	35.7	1.1	1.4	76.1	65.3	46.4	44.0	1.5	2.1	78.7	75.0
160	6	48.1	45.7	6.0	4.0	79.7	76.0	54.9	52.2	8.0	7.3	93.0	86.9
160	10	54.9	53.1	7.0	7.1	93.2	88.7	55.1	56.5	9.9	11.6	93.1	96.9
170	6	50.6	53.0	11.8	10.8	81.6	87.6	55.7	56.2	12.9	15.1	94.3	95.5

A translation by W. E. Byron Baker from the German as published in Meddelander fran K. Vetenskapsakademiens Nobelinstitut, Stockholm, Band 6, N:o 10. The translator thankfully acknowedges the courtesy and kind permission of the author to publish the English translation of this work exclusively in Technical Association Papers.—(Translator's Note.)

Temp. °C.	Time hr.	NaOH, 100 g per liter: Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose		NaOH, 125 g per liter: Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose	
		Obs.	Calc	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.
140	10	48.0	49.4	2.7	2.9	80.7	83.0	51.8	52.4	5.6	3.5	87.4	88.4
160	6	55.0	55.1	9.5	9.5	93.2	93.2						
160	10	55.6	57.2	15.3	14.6	93.5	98.9	56.8	57.4	21.4	17.1	96.7	99.6
170	6	56.2	57.1	19.2	18.8	94.7	98.3						

centimeter as the concentration unit according to the formula

$$2.3025 \log \frac{M}{M-x} = kCt$$

in which C signifies the concentration and t the time of reaction. M is in the case of the encrusting matters 57.5 and in the case of the cellulose 42.5; x is the dissolved quantity of encrusting matter or, as the case may be, cellulose, after the reaction time t, and *log* indicates common logarithms. If ki refers to the encrusting matters and kc refers to the cellulose we obtain the following numerical values:

	K:	Kc	
Temp. 140, t=10	1.94	69×10^3	
Temp. 160, t=6	6.06 } 5.34	465×10^3 }	428×10^3
Temp. 160, t=10	4.63 }	391×10^3 }	
Temp. 170, t=6	8.47	976×10^3	

The value of Ai is for the encrusting matters 9004, that of Ac for the cellulose 16,120 according to formula 1, if one calculates Ai and Ac from the experiments at 140 and 170 degrees. If these values are used as a basis for calculation of ki and kc at 160, one finds k equals 5.29 instead of the observed value ki equals 5.34 and kc 421 x 10_3. The agreement of the calculation with the observation is exceedingly good considering the large experimental errors which fortunately have neutralized each other by taking the mean. It is of great significance that ki is found to be considerably greater than kc. The ratio ki:kc is 28 at 140 degrees, 12.5 at 160 degrees and 8.7 at 170 degrees. This ratio decreases quite rapidly as the temperature rises so that at a certain temperature, about 270 degrees, it becomes equal to one. At this temperature the encrusting matters and the cellulose would be dissolved with the same velocity, i.e., one would not be able to separate the cellulose from the accompanying encrusting matters at this cooking temperature. At still higher temperature the encrusting matters would be dissolved slower than the cellulose. It is indeed a fortunate circumstance that the favorable temperature interval lies in such low temperatures as in the case before us. Otherwise the process would not be practicable. It is also clear that as Rinman has proposed, it is advantageous to employ as low temperatures as possible for purification of the cellulose The practice however, sets a certain limit for the lowering of the temperature because about three times as long a time period is required at 120 degrees for obtaining the same degree of purity as at 140 degrees.

From the above figures at 160 degrees it also appears to

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follow that ki and in a small degree kc decreases with increasing reaction time period. This is quite natural. In the experiments at 160 degrees and where t was equal to 10 there was not more than about 4.5 per cent of the encrusting matters undissolved, even in the lowest concentration of the soda lye. The encrusting matters are of various types and it is obvious that the most resistant types remain undissolved even to the end. Also the partial combinations of the alkali with the decomposition product which possess a weak acid character might gradually decrease the reaction velocity. This condition might play the greatest role in the solution of the cellulose which has progressed only to a relatively small extent in the aforementoned experiment. As is well known, one ascribes the milder attack upon the cellulose in the presence of sulphite to the circumstance that the alkali is partially bound. By the Rinman method one adds some waste liquor from an earlier cooking to the alkali in order to mitigate its violent atatck on the cellulose. In order to clarify the favorable reaction of sulphides and sulphate lyes, Engineer Bruun has conducted some experiments, the course of which is indicated on Tables 2 and 3.

TABLE 2
COOKING WITH PURE SODIUM SULPHIDE. $Na_2S.{}_9H_2O$ AT 160° C FOR 10 HOURS.

Contents of Cooking Lye as $Na_2S.{}_9H_2O$	Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose	
	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.
80 g/l (=26.7 g/l NaOH)	40.1	43.9	2.6	2.1	69.6	74.8
100 g/l (=33.3 g/l NaOH)	48.7	48.2	2.6	2.1	81.9	81.1
120 g/l (=40.0 g/l NaOH)	50.6	50.9	(3)	3.1	85.1	85.6
140 g/l (=46.7 g/l NaOH)	54.4	52.9	3.5	3.6	92.6	89.4

TABLE 3
COOKING WITH A MIXTURE OF 58.7%, NaOH, 35.4% $Na_2S.{}_9H_2O$ AND 5.9%, Na_2CO_3 FOR 6 HOURS AT 160° C.

Contents of Cooking Lye on basis of the Mixture	Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose	
	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.
35 g/l (=24.2 g/l NaOH)	50.7	47.2	0.3	1.5	86.1	79.9
52.5 g/l (=36.3 g/l NaOH)	53.2	53.1	2.4	2.2	90.3	90.2
70 g/l (=48.4 g/l NaOH)	53.6	55.7	3.8	2.9	90.8	95.6

The most concentrated solutions in Tables 2 and 3 are almost just as strong as the weakest solution in Table 1—the former being 6.6 per cent and the latter being about 3.2 per cent weaker. The solutions in Table 3 are equivalent in their composition approximately to sulphate liquors of different strengths. The last two tables show that the sulphide lyes and the sulphate lyes protect and preserve the cellulose fibers without impairing the solution of encrusting matters. For lyes which contain the same amount of sodium (28.8 grams) per liter as the solution with 50 grams sodium hydroxide per liter, we find through a very slight extrapolation the following values. (Table 4.)

The figures listed as calculated are apparently somewhat more accurate than those listed as observed. The former are to a certain extent mean values in which the experimental errors are partially compensated for.

A comparison of horizontal Columns 2 and 3 of Table 4 shows that the sulphide lye exerts just as strong solvent action on the encrustations as the soda lye of equivalent concentration. The former shows, however, a small advantage which however is so trifling that it falls completely within the margin of experimental error. In contrast to this the cellulose is much less attacked by the sulphide lye than by the soda lye; in fact, approximately in the ratio of 55 to 100. A result of this is that not only will more cellulose be produced by the sulphide treatment but also its degree of purity is considerably greater. The action of the sulphate lye appears to be still more advantageous, as a comparison of horizontal Columns 1 and 4 shows. By the action of equivalent quantities the sulphate lye dissolves about 11 per cent more of the encrusting materials but 30 per cent less of the cellulose than the soda lye. The cellulose produced with sulphate lye is about four times purer than that prepared with soda lye which results in the considerably higher degree of

TABLE 4

	Dissolved Encrusting Matters		Dissolved Cellulose		Purity of Cellulose	
	Obs.	Calc.	Obs.	Calc.	Obs.	Calc.
1. Cooking with NaOH 6 hours at 160° C	48.1	45.7	6.0	4.0	79.7	76.0
2. Cooking with NaOH 10 hours at 160° C	54.9	53.1	7.0	7.1	93.2	88.7
3. Cooking with Na_2S 10 hours at 160° C	56.3	53.9	3.8	3.9	97.0	91.5
4. Cooking with sulphate lye 6 hours at 160° C	53.7	56.3	4.0	3.0	90.9	96.3

strength of sulphate cellulose as compared to soda cellulose, as is also quite well recognized.

Concerning the influence of the temperature and cooking time on the sulphide and sulphate cellulose, we have no data in Tables 2 and 3. However, since in Table 3 the observed values for the dissolved encrusting matters are greater than the calculated values at lower concentrations and vice versa at higher concentrations, this indicates that the portions dissolved firstly are attacked much more easily than those which are dissolved later. From this it appears quite probable that the reaction velocity is greater in the beginning of the course of the reaction than later. Curiously the reverse seems to take place both in respect to the action of sulphate lye on the cellulose and the action of sulphide lye on the encrusting material. The experimental errors are however all too great, so that one might be inclined to draw very improbable conclusions from these considerations alone.

The fact that the quantity of encrusting matter dissolved per time unit, or the cellulose, the undissolved quantity of the same material is proportional, indicates that an intermediate body is formed in the beginning of the solution process with relatively greater velocity, only to afterwards relatively slowly decompose under the action of the alkali. On the other hand, it appears rather difficult to point out the proportionality of the reaction velocity with the quantity of alkali present at the beginning, if one, in the usual manner, assumes that the alkali is gradually during the process combined with the so-called lignin acids originating from the encrusting materials. The above named proportionality seems therefore to indicate that this combination first takes place in a degree worthy of mention in the cold after the ending of the (cooking) process.

Summary

The experiments conducted by Johannes Bruun on the solubility of wood fibers (wood chips) in the solutions of soda lye, sodium sulphide and sulphate lyes permit of calculation with good results according to the laws of monomolecular reactions. The influence of the temperature on the reaction velocity can be computed very well by the well known formula (1) defining the reaction velocity. The reaction constant is proportional to the concentration of the attacking lye. The reaction velocity of the solution of the encrusting materials by soda lye is, at 140 deg. cont., about 28 times greater than the of the solution of cellulose by soda lye; at 170 deg. the ratio has sunk to 8.7 to 1. At 270 deg. both processes would progress approximately equally rapidly. The reaction constants decrease somewhat both for encrusting matters and for cellulose with increasing solution.

The velocity of the solution of encrusting matters is somewhat greater in sulphide solution or sulphate lye than in soda lye of equivalent strength; the reverse applies in marked degree to the solution of the cellulose. This condition explains why one obtains a better (stronger) product with those dissolving agents, especially sulphate lye, than with soda lye.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

The Value of the Cost Bureau*

By J. C. Oswald, Managing Director, Employing Printers Assn. of New York

When Mr. Burke came to see me about appearing before you this morning I understood he wanted me to talk to you about the value of a cost system in the printing trade. I don't know how intimately you gentlemen come in contact with the printing trade, but I imagine you have some, if not direct at least indirect, relations with it. If so I don't think I need tell you that printing is a business that is not very profitable. It is not a customary thing for printing establishments to build up large reserves and that same condition has persisted throughout the whole history of the business.

About ten days ago there was sold here in New York City a copy of the Gutenburg Bible, the first work produced in a printing office, for $106,000. It is interesting to recollect that the printer who produced that book, the first printer, lost all the money he had in the printing business (and when he went into it he had considerable); that he raised money through a mortgage on his printing plant and eventually the printing plant was taken away from him. That was a bad example to set and it seems to have been pretty consistently followed throughout the whole history of the business. I remember some years ago attending a banquet here in the city at which Elbert Hubbard was a speaker. I knew him. We stood talking in the ante-room before the banquet and along came a well-known man whom I introduced to Mr. Hubbard as the author of a book, "How to Make Money in the Printing Business." Mr. Hubbard said, "I am very glad to meet you, Mr. So-and-So. I have read your book and I regard it as the most interesting work of fiction I ever read."

Urgent Need for Cost Work

What I have been saying is intended to be merely a sort of introduction to the statement that when the cost idea was presented to the printing trade there was a very urgent need for it. I have never been in the paper business but I have been associated with paper manufacture, paper dealers, etc., for a great many years and I have always understood that the same condition does not prevail with you—that yours is a profitable business and that you do have reserves. So that probably the necessity for a cost system is not as urgent with you as it is with us in printing.

This condition persisted throughout the whole history of the business. I recently had occasion to make an address at the 60th anniversary of our local organization, the Typothetae of the City of New York, and in looking up the history I got a list of printing establishments that were in existence here when the organization was established sixty years ago. It was an interesting thing to find that there was not a single firm in existence at that time that is in existence now. In other words, in the printing business firms come and go. A printing business continues for a certain period because there is a strong personality behind it usually and when that personality is withdrawn, something happens to the firm.

We have to make estimates for the work we do. Nearly everybody who comes into a printing establishment wants to know in advance what the work is going to cost; that is a reasonable condition, one that has to be met. In the old days the printers simply took a bite off a bit of paper, chewed it and blew it out and said, "Ten dollars." It was a guess. There was no such thing as estimating; there was no basis for estimating; there was no way of knowing what anything would cost.

Contributing Conditions

One thing that contributes largely to that condition is that what we have to sell is service; that your estimate or my estimate or the other man's estimate of how much time is going to be taken in performing a certain piece of work is largely a guess. If you get up in the morning after a good night's sleep and walk down to the station through the bright sunshine, you feel full of vigor, and when you come to a question of making an estimate on a job, you say, "I can do that in ten hours." But if you had a bad night and are not feeling well and not so sure of yourself, maybe you will say fifteen hours. Therefore, in making his guess the estimator has to take into account the mental conditions under which he is working.

In the year 1905 a group of men, leaders in the printing industry, got together in Chicago and held what they called the First International Cost Congress. They presented the idea to those who were assembled, several hundred employing printers from various parts of the country. They proposed a way out, which was the application of the cost system idea to the printing problem. It was not exactly true that all printing establishments were going without any guide of any kind, but the thing about them, that was faulty, was that the systems they used didn't apply particularly to the printing business. A cost accountant would apply ordinary principles of cost accounting to the problem but there was needed an intimate association, an association growing out of familiarity with the intricacies of the printing business, so as to make it really apply to our problems.

There is no more irritating business than that of printing. We do business with units of almost infinitesimal size. Thousands of pieces of metal go into the production of a book and if they get out of place the book is apt to possess no value. I once printed on expensive paper and with high-priced illustrations a booklet for a financial institution here in the city in which one word was misspelled. That was the word "surplus." It was a very important

* Address delivered at Meeting of the Cost Association of the Paper Industry, at the Waldorf-Astoria Hotel, N. Y. City, on Wednesday, Feb. 24, 1926.

word in that book and the customer actually tried to reject the job on account of the misspelling of that one word. It was only one word out of several thousand in the book but the customer could not see anything else but that misspelled word.

Has No Secondary Value

Our product has no secondary value. You sell paper as "seconds." You can always get something for any product, even if it has a flaw in it, but that isn't the case with us. So that in devising a cost system it was found that a work of very considerable detail was under consideration. There being no reserve in the bank to inaugurate a thing of this kind, which meant a very considerable expense to the industry, we had necessarily to call upon the allied trades for financial help. We inaugurated what was called a three-year plan. We went to the dealers and said, "Here is a condition which you know is bad." The machinery dealer knew it was bad because he had been selling machinery costing thousands of dollars and taking notes in payment that extended five and six years at fifty dollars or so a month each. That condition was universally known and accepted. But the leaders said, "That is a condition which ought not to prevail and we ought to correct it and in order that we may do so we ask you to join with us." So we raised a considerable sum of money and started to devise ways and means of meeting this situation through the application of the cost system idea. The first thing that had to be done was to collect statistics. That was something of a job. The average printing office had no records of any kind upon which to base statistics and therefore, when it came to filling out a questionnaire they didn't understand the language. But after a considerable time and a great deal of labor—unselfish labor on the part of a few men—the cost system was devised. It has been put into operation now and prevails practically all over the United States, although in a limited way, naturally.

I might say that the printers themselves contributed a large part of this money. We employed a field force of men who went about through the country persuading the printing establishments to put the cost system in. That work is not being so extensively done as it was when we had a large income with which to prosecute it, but we do locally still maintain field men who make it their business to put cost systems in.

Install Systems

We have at the association here in New York, which is a local organization of the United Typothetae, a force of several men whose services are obtainable by the members. We install systems and then we follow through to whatever extent is needed. If the printer has a small place and requires the services of an accountant for a limited time only, we arrange with him on that basis. We are having good results. We find when the system is put in usually after a certain period the establishment gets to the point where it can maintain the system without outside assistance, so that we don't have to provide anything but a supervisory relation.

A cost system is not a panacea. It won't make an unprofitable business into a profitable business by itself alone. It will contribute, however, very materially to it. You can't know in advance in our business what any job is going to cost, but the cost system enables us to tell what our costs were for the year before. With that as a basis, we can make a more intelligent guess as to what they are going to be this year than we could make without that information.

I one time went into the office of the proprietor of a business here in the city and found the proprietor sitting with his head on his hands and his elbows on his desk. I asked, "What is the trouble?"

He said, "Here are the costs on the same job done last year and this year, supposedly accurate records. This year it cost me thirty per cent more to do it than it did last year. What is the answer?"

I said, "Probably your men weren't working as hard this year." Of course, that was the answer. They simply had put in more time on the job. Perhaps the place wasn't as busy and they soldiered a bit. So that what the cost system gives is not always an accurate record upon which to base a selling price, but, nevertheless, it does give you knowledge and eliminates a certain amount of indefinite guessing.

Showing Up the Leaks

But I think the principal value is in showing up the leaks. If there is a fine co-operation between departments of a business, no lost motion, your manufacturing goes along at the highest possible rate of efficiency; but if there is friction, lack of co-operation or the 101 little things that may happen, it means a loss and you can only find that fact out through a cost system. When the record on the job comes to the manager's office and he goes over it and sees what has happened he is enabled to correct wrong conditions and thereby effect a saving in the future.

The output of printing in the United States in 1923, which was the last year for which we had statistics, was something over seven hundred millions of dollars. There are something over ten thousand establishments throughout the United States. Most of them, of course, are small. Out through the West and Far West you will find printing offices in every town with five hundred inhabitants, sometimes two or three in a town. Although they count in this total, yet for practical purposes, particularly as relates to this discussion, they are not a factor. We had last year only 252 establishments in the country reporting to our national organization. We think we have about fifteen per cent of the total number using the cost system. That includes the larger establishments. There are no very big printing establishments excepting in the big centers of population. Probably a dozen cities would include all of the larger establishments. So that as far as the volume of business is concerned, the cost system has been made to apply to a very considerable extent.

Ratio of Composite Costs

We publish every year this little pamphlet which we call the Ratio of Composite Printing Costs (this one being for the past year, 1924) in which we sum up the information we get through these reports. It is quite thorough. It enables us to keep a check up. You might be interested to know that the ratio of profit for the last few years has been steadily going down. In 1921 on a volume of business of fifty-seven million, the ratio of profit was 9.38 per cent. The next year on about the same amount of business it dropped down to 5.46 per cent. Then in 1923 it dropped down to 3.87 per cent, less than four per cent volume of business reporting a percentage of profit. You as manufacturers would consider that very low, I am sure. In 1924 it went up to 4.13 per cent.

In 1923 and 1924 the volume of business reported was only thirty-five millions, which is about five per cent of the amount of business done throughout the country, and of course that would be very small if it were not representative in the sense that it covers a good many states and the largest centers of population. But, having these facts, it gives us a check up on what is going on. We are analyzing these figures and we find that a certain percentage of the business is not paying any profit at all. We are able to determine the size of a business at which it begins to make a profit and find, for instance, that as businesses go up in size, the establishments are able to reduce their costs and to make larger profits. We find the relation of the output to the plant investment. We find that ordinarily the output is about double the amount of plant investment. Of course, as you go higher, where a larger number of men can be employed—in the composing room particularly and to an extent in the press rooms and binderies—the percentage of profit is increased.

Average Production Record

That seems to demonstrate to us the value to our trade of this cost system, inadequate as it may be in some respects. One thing we have done is to produce after several years of effort what we call an average production record book, a book which we do not sell but which we give to our members. It is a book in which we have assembled all the information that we can possibly get that will aid the estimator. For instance, we show him a page like that and through the statistics we have collected we know about the

average amount of time it has taken to set that page in type. We put that down in this book so that the estimator may turn to it and if he has about that type of composition to consider and about that area of space he can make a more reasonable guess as to what it is going to cost him to produce it in his establishment. When he has the record of the performance, if his costs are higher, he is able to know that fact and possibly to find a remedy for it.

There is one thing I think that ought to be said about a cost system and that is that it is not automatic. It will not work of itself. Sometimes a printer, accustomed to thinking in terms of craftsmanship, finds it difficult to adjust his mental machinery to this system of figures and abstract records that is altogether foreign to him. He puts it in and expects it to run alone because he was told it would help him make money, but finds at the end of the period he hasn't made any more money, so he is inclined to think the system is a failure. The reason is that he hasn't followed through.

Disagree in Their Diagnosis

One of the first apostles of the cost system in the printing business was a printer named Frank E. Ellick, who was manager of a printing plant in Omaha, Neb. I remember hearing Mr. Ellick tell a story that illustrates how doctors will sometimes disagree in their diagnosis. It was about an Omaha baker he knew who did a large business, specializing in doughnuts. The baker said to Mr. Ellick that he was doing a big business but didn't seem to make any money. "You have been talking about this cost system," he said. "Could I put it in the bakery business? You tell me it works and helps you make money in the printing business. Would it help me make money in the bakery business?"

Ellick replied, "Certainly." Then said the baker,

"Send somebody around and put it in."

"I can't send you one of our men because they only know the printing business," explained Mr. Ellick, "but I will send you an accountant who will make a study of your business and make recommendations as to what you ought to do."

After a time Ellick met the baker again and asked, "Well, what happened? Did you put in a cost system?" The baker replied, "Yes. The man came to see me and he made what you call a survey of my business and looked into everything and spent a lot of time and sent me a bill, and said, 'The trouble with you is you give too much for the money. Look at your doughnuts. They are too big. You should make a bigger hole in them, so you can produce them cheaper.' So I made the hole bigger, but still I do not make any money." Ellick said, "Maybe the man I sent was not the right man. I will send another." Eventually he met the baker again and asked him if he had changed his cost system. The baker replied:

"No. The second man you sent made his survey as you call it, and what do you think he said to me He said: 'You sell doughnuts by the millions and you give too much for the money. You cut the hole too big; it takes too much dough to go around it.'"

Special Application Required

There was a case where the doctors disagreed. Cost systems require particular and special application. There must be co-operation not only in the installation but continually. You have to follow through with it. That is what we are trying to do in the printing business. I find, that there are times when it doesn't seem to work and the printer will not persist with it because he is doubtful about it, but there isn't any question in the minds of those whom we first summoned to our aid, the supply people, as to whether or not an improvement has been the result. The rule now in selling machinery to printing offices is that there is seldom a credit for more than two years, with a substantial first payment, usually twenty-five per cent. That has been one beneficial result.

Discussion

QUESTION: What were those percentages of profit on sales that you gave?

MR. OSWALD: Last year it was 4.13 per cent.

QUESTION: Was that after depreciation and all the charges?

MR. OSWALD: Yes. It is clear profit available for dividends and surplus. There is an analysis of this in this book and if any one of you would like one I will be glad to send it to you. It gives a complete analysis showing how that applies to offices of various grades. You might be interested to know just what is summed up in this final report. We have, for instance, classes a to h, sales from $15,000 or less, up to $750,000. I remember one time discussing this question at a gathering of small printers. A printer, who had a cost system, was telling how much the units cost. Another man said his statements were nonsense, that he himself was producing and selling for less and making money. This man made the remarkable statement that in the previous year he had done a total of $20,000 of business, out of which he had taken $11,000, but it developed that his wife and his son and the whole family worked. His wife kept the books and read the proofs. He had no costs.

When you talk about a business of $15,000, it seems very small. It would be small ordinarily, yet it runs down to that in the printing establishments. The tables give the comparison of percentages, rates, factory, commercial and selling expenses and profit of sales for the year 1921 to 1924, a comparison of percentage ratios of sales to investments for each of the eight classes of printing plants, with a general average for the years. There are seventeen tables which give a complete analysis of these reports.

I was interested in something Mr. C. R. Stevenson said. Up until a year ago we restricted our costs to mechanical operations only. We did not include selling expense and I don't think we should. The cost system should give manufacturing costs alone, but there came an element into our councils who said, "We must include selling expense because if we don't the estimators won't put it in their quotations." And so now we do include selling expense in our cost. We are fooling ourselves, of course. I judged from something that Mr. Stevenson said that he advocates doing it.

MR. BURKE: No, he doesn't advocate doing it. If you want to distribute your selling expenses over the various products, he suggested doing it on the basis of the conversion cost.

MR. OSWALD: Then I got a wrong slant.

QUESTION: Do you make out a complete comparison of balance sheet ratios for the different members of your organization?

MR. OSWALD: For the different members of the United Typothetae? It would be too big a job. We don't get the co-operation we should. I am Managing Director of the Association here and I find it almost impossible to get statistics. Our test as to whether or not a member has a cost system is this: If he can fill out the 9H sheet, he has a cost system. If he can't, he hasn't a cost system. A great percentage of the printers are fooling themselves by thinking they have a cost system, when they have none. I have the greatest difficulty in getting answers to our questionnaires. One reason may be that they don't want to show the real conditions.

QUESTION: How do you determine the cost of hand composition? I mean in comparing the estimated with your actual. Is that done on the square inch?

MR. OSWALD: The average estimator does not use the square inch method, although the average production record book teaches it. We arrive at cost in the composition as we do in press work. The press is the unit in the press room and the workman is the unit in the composing room. We take the total of all the costs of operation and divide it by the number of hours sold. Of course, all the unproductive hours, like proof-reading and management go into the cost.

QUESTION: You just take the actual setting-up hours and divide that into the total cost?

MR. OSWALD: If the composing room produced a million hours in a certain period and it costs $4,000,000 to produce it, we know it costs four dollars per hour.

QUESTION: When a printer makes his estimate of that composition he would estimate the time that it took to make that particular set-up?

MR. OSWALD: At the end of the year we figure up that we sold a certain number of hours in our composing rooms for the past year. We take that as the guide for the coming year. That is all we can do.

QUESTION: Don't you think that prices are disrupted a whole lot by those concerns which do printing other than job printing? My experience has been that in getting estimates I always find those people who print daily papers quote much lower prices than others who do job printing entirely.

MR. OSWALD: That is one of our great difficulties. In many towns in the West and outside of the Metropolitan district in the East, the newspaper business is a profitable business, but part of every day, particularly in the case of weeklies, there are times when the workmen in the plant have nothing to do. The proprietor therefore figures all he can get in on printing is so much velvet. He doesn't care anything about costs, and makes prices that are practically impossible for commercial printers to meet.

QUESTION: I have had prices as low as fifty per cent of what other men who engaged in job printing entirely have quoted.

MR. OSWALD: That condition can't be met in any way that I know of. I have talked cost systems to some of these men and they say, "I don't care anything about it." Costs to my mind entirely depend upon the efficiency of plant operation. I investigated a printing office here recently in which the manager assured me that in his press room the previous month his percentage of idle time was less than two per cent. In other words, he got over 98 per cent production out of his presses. The expensive thing in printing establishments, and with all manufacturing establishments in fact, is idle time. If you can get a composing room or press room up to 98 per cent, you can quote low prices and still make money. I don't blame a printer who quotes low prices on that basis. It seems to me if he had fine managerial skill, enabling him to keep his plant moving along on an even basis, he is entitled to the differential that comes from that condition.

QUESTION: Why is it that so few printers are equipped to do rotary printing?

MR. OSWALD: In the first place a rotary press is a matter of considerable investment and consequently not all printing offices have them. Also, the preparation and the running of a rotary press is more costly. It is a matter of volume. If you can produce up into the hundreds of thousands and millions, then it becomes a matter of rotary press work. The one big outstanding development in the printing trade in the last fifteen years has been the production of the magazines with pages in color. That is entirely a rotary matter. There we can get costs down. You can readily understand that if it were not for the rotary press and the improvement in color printing it would not be possible for you to buy a magazine like the *Ladies Home Journal* or the *Woman's Home Companion* for anything less than a dollar a copy. It is the rotary press that has made that possible.

Kalamazoo Cost and Technical Men Meet

KALAMAZOO, Mich., April 5, 1926.—The Kalamazoo Cost and Technical Associations of the Paper Industry met Wednesday evening in the Park-American hotel for dinner and a program. George H. Gerpheide, vice president of the Allied Paper Mills, spoke on "Use that a Purchasing Department Can Make of its Cost Department." George K. Ferguson, manager of the cost department of the Watervleit Paper Company, gave details on how he handles the cost of rags and paper stock in the beaters.

British Demand for Wood Pulp in Sweden

WASHINGTON, D. C., April 7, 1926.—There was a slight increase in prices of strong sulphite and sulphate pulps during the last two weeks in February, these grades now being quoted at approximately $2.68 and $2.85 per 100 pounds, f.o.b. Swedish port. The brisk demand for wood pulp continued during January and February, and interest is now being directed principally toward business of the 1927 season.

Trade Marks Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade-mark applications pertinent to the paper field pending in the United States Patent Office, which have been passed for publicaion and are in line for early registration unless opposition is filed promptly. For further information address National Trade Mark Company, Barrister Bldg., Washington, D. C., trade-mark specialists. As an additional service feature to its readers, PAPER TRADE JOURNAL gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering.

SIRIUS—No. 214,196. Zurcher Papierfabrik an der Sihl, Zurich, Switzerland. For thin and thick drawing paper, tracing paper, bond and other writing paper, and cardboard.

CHUT—No. 224,748. Jean Dieux, Paris, France. For printing, writing, and ledger paper; pencils, blank books.

MURALIA—No. 226,466. Baeck Wall Paper Company, Brooklyn, N. Y. For wall paper.

SLIP-SERT—No. 226,428. Harry L. Kalish, New York City. For sample display cards.

ANCHOR BRAND—No. 217,642. Sefton Manufacturing Corporation, Chicago. For pasteboard, cardboard boxes, cartons, etc.

SUNBEAM—No. 217,134. Crown Willamette Paper Company, San Francisco, Calif. For raisin-tray paper.

SUNLAND—No. 219,730. Crown Willamette Paper Company, San Francisco, Calif. For raisin-tray paper.

CARIBOU—No. 222,758. Paper Service Company, Inc., Hinsdale, N. H. For toilet paper.

NATIONAL ARTS—No. 224,924. National Cloak and Suit Company, New York City. For wall papers.

GYPSY CLOTH—No. 224,319. The Robert Griffin Company, Jersey City, N. Y. For wall paper.

ROTINDIA—No. 225,929. Kimberly-Clark Company, Neenah, Wis. For book papers.

PLAN-A-DAY—No. 225,991. Bankers Printing Company, San Francisco, Calif. For diaries, calendar pads, etc.

ARTFOIL—No. 225,390. Westfield River Paper Company, Inc., Russell, Mass. For wrapping paper.

BLUE RIBBON—No. 225,582. Angel International Corporation, New York City. For paper receptacles.

BONANZA—No. 226,227. Byron Weston Company, Dalton, Mass. For writing paper.

WAHCONAH—No. 226,537. Byron Weston Company, Dalton, Mass. For writing paper.

CENTENNIAL—No. 226,472. Byron Weston Company, Dalton, Mass. For writing paper.

WA-HA—No. 222,548. Advance Bag and Paper Company, Inc., Boston, Mass. For paper bags.

WHITE ROCK—No. 222,538. Advance Bag and Paper Company, Inc., Boston, Mass. For paper bags.

PURITY—No. 222,554. Advance Bag and Paper Company, Inc., Boston, Mass. For paper bags.

SUMMIT— No. 211,473. Hoberg Paper and Fibre Company, Green Bay, Wis. For toilet paper.

GATOR HIDE KRAFT WRAPPING PAPER—No. 221,088. Bastrop Pulp and Paper Company, Bastrop, La. For kraft paper and kraft pulp.

KING SPRUCE—No. 222,546. Advance Bag and Paper Company, Inc., Boston, Mass. For paper bags.

SOISETTE—No. 227,699. Universale Crepe and Tissue Mills, Inc., New York City. For toilet paper.

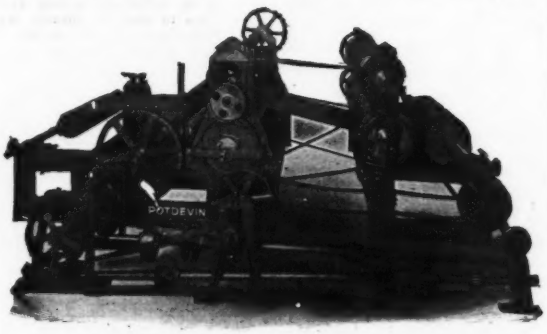
PARA-PARCH—No. 227,308. The Henle Wax Paper Manufacturing Company, Inc., New York City. For paraffin-treated parchment bond paper.

ACCORDIONFOLD ENAMEL—No. 218,391. The Buyer's Paper Company, Dayton, Ohio. For printing paper.

NOIRGRAVE—No. 218,163. Bushnell-Dahlquist Press, Inc., Minneapolis, Minn. For calling cards, window cards, wedding invitations, etc.

PARVELL—No. 227,597. Par Vell Laboratories, Columbia, Ohio. For drawing paper, tracing paper, vellum paper, and parchment paper.

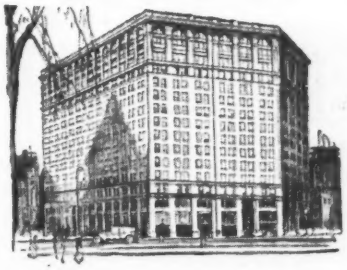
POTDEVIN
PAPER WAXING



PAPER BAG
CENTER SEAM ENVELOPE
MACHINERY
POTDEVIN MACHINE CO.
1223 38th Street, Dept. 7, Brooklyn, N. Y.
Phone: Berkshire 5906-5907

Watson-Frye Company
BATH, MAINE
FOUNDERS — MACHINISTS
Pulp and Paper Mill Machinery
CYLINDER MOULDS
—Bronze and Lead Valves—

Ticonderoga Machine Works
TICONDEROGA, N. Y., U. S. A.
MANUFACTURERS OF
WARREN IMPROVED CALENDAR DOCTORS
With Flexible Blades, Universal Adjustment and Control
(PATENTED)
WARREN IMPROVED DOUBLE PATENT DRUM WINDERS
Patent BALL VALVE Hydrant
Stock Circulating Systems and
other Paper Mill Specialties
SEND FOR OUR BULLETIN



Paper buyers find leading manufacturers in the Fifth Avenue Building

On your buying trip to New York, begin at The Fifth Avenue Building. It is the buying center for book, coated, and other papers. Here you will find the New York offices and salesrooms of the leading paper merchants, mill supply manufacturers and mill engineers. Here, in one building—on one buying trip—you can complete your needs for the season. The exceptional convenience of location, pleasing atmosphere and association with successful business men make this the obvious place to do your New York buying.

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The FIFTH AVENUE BUILDING
Broadway and Fifth Avenue,
at Madison Square, New York
"More than an office building"

Obituary

Chester Wolcott Lyman

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., April 12, 1926.—Chester Wolcott Lyman, formerly vice president of the International Paper Company, died in the Massachusetts General Hospital last week. He was sixty-four years old.

Mr. Lyman was born in New Haven, Conn., on May 25, 1861, the son of Chester Smith Lyman and Delia Williams Wood Lyman. He was a student in Hopkins Grammar School at New Haven from 1873 to 1878. He was graduated from Yale in 1882. During his college career he took part in athletics and played varsity football in 1878 and 1879.

After his graduation Mr. Lyman worked for some time with the United States Coast Survey, resigning to enter the paper manufacturing firm of W. H. Parsons & Co. In 1880 he became director and manager of the Herkimer Paper Company.

He took an active part in the formation of the International Paper Company, of which he became vice president in 1898, serving in that capacity until his recent retirement. He remained, however, as a director of the Continental Paper and Bag Company, a subsidiary. He wrote many articles for paper trade publications and was a leader in the American Paper and Pulp Association. Mr. Lyman got the degree of M. A. from Yale in 1895 for his special work in electricity.

In 1915 he married Miss Marguerite Couleru, of Paris, where she now lives with their daughter, Miss Louise Marguerite Lyman. A sister, Mrs. Delia Lyman Porter, of New Haven, the wife of Professor Frank Chamberlain Porter, also survives.

He was a member of the American Forestry Association, American Institute of Electrical Engineers, Sons of the American Revolution, University Club, Yale Club, Piping Rock Club and Midday Club.

The funeral services were held Friday afternoon at 2:30 o'clock at the home of Mrs. Porter.

Norman Russell Lang

[FROM OUR REGULAR CORRESPONDENT]

VANCOUVER, B. C., April 12, 1926.—Succumbing to heart failure following a protracted fit of coughing, Norman Russell Lang, general manager of the Powell Pulp and Paper Company, died in his office Wednesday evening of last week.

Mr. Lang was born at Barnet, Vt., in 1866. Before coming here in 1911 he was associated with the Crown Williamette Paper Company of Portland and was a director of the Brooks-Scanlon-O'Brien Company, which operates extensively in timber in British Columbia. Taking hold of the Powell River Company fifteen years ago, when it was in its infancy, he speedily made it one of the largest manufacturers of pulp and news print on the Pacific Coast. In sport he was a keen golfer and enthusiastic yachtsman. He leaves a wife and daughter, Mrs. Sallie Lang Nichol, both holidaying in California, and a son, Norman McKee Lang, now in the East on business of the company.

Balance Sheet of International Paper

The balance sheet of the International Paper Company, as of December 31, 1925, shortly to be published, is expected to show an increase in working capital of more than $3,000,000, or about 16 per cent, over that shown at the end of 1924. The working capital was about $22,000,000 on December 31, 1925.

The principal changes in the balance sheet will be those arising from the acquisition of the extensive Canadian properties of the Riordon Company in March, 1925. Approximately $39,000,000 has been added to capital account, representing cost of the Riordon properties and actual expenditures for improving and increasing properties during the year. The increase of approximately $25,000,000 in the company's funded debt represents principally the securities issued to buy the Riordon properties, very little actual cash having been required to finance the purchase.

The book value of the 500,000 shares outstanding is now, including reserves, in excess of $110 a share, after deduction from property account of liberal allowances for depreciation and depletion but with no allowance for recent increases in property values which, in the case of timber lands especially, have sometimes been several times the original cost. The company's waterpowers (aggregating 180,000 horsepower developed and 420,000 horsepower undeveloped) and its more than 10,000,000 acres of timber lands and limits stand on the books at far less than their actual present value.

Resolutions on Death of E. T. Mudge

[FROM OUR REGULAR CORRESPONDENT]

BALTIMORE, Md., April 12, 1926.—The following resolutions have been prepared by the special committee appointed by H. A. Lengnick, president of the Baltimore and Southern Paper Trade Association, on the death of E. T. Mudge, late member and first president of the association:

WHEREAS, through the death of Mr. Edmund Tileston Mudge, the Baltimore and Southern Paper Trade Association has lost one of its most highly esteemed members; and,

WHEREAS, we, his fellow members and officers of the Baltimore and Southern Paper Trade Association deem it fitting that they express in some suitable way their appreciation and respect for the man who for many years gave his best efforts to this industry, and to the community; Therefore be it

RESOLVED, that in the death of Mr. Mudge this Association has lost an active and worthy member and its first president, and the community has lost a man whose earnest efforts and public spiritedness made him admired and esteemed by all; and be it further

RESOLVED, that the sympathy of this Association be extended to the members of his family, and that a copy of these preambles and resolutions be spread upon the minutes of the Association, and a copy thereof be forwarded to his family.

Mathieson Alkali Works Changes

The Mathieson Alkali Works, Inc., of New York City has completed arrangements with the Fields Point Manufacturing Corporation of Providence, R. I., which will afford the latter corporation the general support and extensive resources of The Mathieson Alkali Works, for the benefit and service of the New England customers of both companies.

Daniel Townsend, president of the Fields Point Manufacturing Corporation, will have charge of the sales of both companies' products in the New England territory, under the direction of the Mathieson General Sales Offices, 250 Park Avenue, New York.

The New England District Sales Offices will be maintained as before at 911 Rhode Island Hospital Trust Building, Providence, R. I.

The Mathieson Alkali Works, Inc., announces the appointment of William A. Field, formerly located in the St. Louis territory, as Chicago district sales manager with offices at 310 South Michigan Avenue, Chicago, Ill., to succeed J. B. Peake, resigned. Also the appointment of Frederick H. Lovenberg, formerly attached to the New York sales office, to take charge of a St. Louis District sales office.

Ordering Machinery for River Rouge Mill

[FROM OUR REGULAR CORRESPONDENT]

MONROE, Mich., April 9, 1926.—The new binders board mill to be built by the Consolidated Paper Company at River Rouge is attracting considerable attention. Orders for the machinery equipment are being placed and the work of construction will soon be vigorously under way. The contract was awarded last week to the Dilts Machine Works, Inc., of Fulton, N. Y., for the beater equipment of the mill. Dilts new type beaters will be used. The company plans to have the plant in operation by midsummer.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING APRIL 10, 1926

SUMMARY

Cigarette paper .....3,678 cs.
Wall paper.....154 rolls, 200 bls., 29 pgs.
Paper hangings .....67 bls., 6 cs.
News print .....728 rolls, 305 bls.
Printing paper .....171 rolls, 365 bls., 928 cs.
Wrapping paper..113 webs, 87 rolls, 83 bls., 31 cs.
Packing paper .....11 cs.
Kraft paper .....62 rolls
Parchment paper .....2 cs.
Painted paper .....43 cs.
Filter paper .....12 cs.
Tissue paper .....29 cs.
Baryta coated paper .....82 cs.
Gold coated paper .....2 cs.
Surface coated paper .....34 cs.
Writing paper .....5 cs.
Tracing paper .....10 cs.
Cover paper .....9 cs.
Decalcomania paper .....78 cs.
Colored paper .....11 cs.
Trunk paper .....6 cs.
Note paper .....1 cs.
Silk paper .....9 cs.
Paper tubes .....11 cs.
Straw board .....432 rolls
Miscellaneous paper.69 rolls, 262 bls., 134 cs., 5 pgs.

CIGARETTE PAPER

American Tobacco Co., Indep. Hall, Bordeaux, 1000 cs.
R. J. Reynolds Tobacco Co., Indep. Hall, Bordeaux, 2020 cs.
De Manduit Paper Corp., Indep. Hall, Bordeaux, 470 cs.
P. J. Schweitzer, Paris, Havre, 25 cs.
British American Tobacco Co., Paris, Havre, 20 cs.
Zorro Tobacco Co., Sinaia, Marseilles, 30 cs.
Standard Products Corp., Liberty, Havre, 133 cs.

WALL PAPER

F. J. Emmerich, Deutschland, Hamburg, 12 bls.
F. J. Emmerich, Minnewaska, London, 29 pgs.
F. J. Emmerich, Alaunia, Liverpool, 28 bls.
F. & R. Trading Corp., Bird City, Hango, 154 rolls.
F. & R. Trading Corp., Andyk, Rotterdam, 160 bls.

PAPER HANGINGS

W. H. S. Lloyd & Co., Minnewaska, London, 67 bls., 6 cs.

NEWS PRINT

H. Reeve Angel & Co., Inc., Deutschland, Hamburg, 276 rolls, 38 bls.
Maurice O'Meara Co., Deutschland, Hamburg, 29 bls.
Maurice O'Meara Co., Bird City, Hango, 238 bls., 130 rolls.
Parsons & Whittemore, Inc., Yorck, Bremen, 322 rolls.

PRINTING PAPER

W. Hartman & Co., Inc., Deutschland, Hamburg, 283 bls.
H. Reeve Angel & Co., Inc., Deutschland, Hamburg, 320 cs., 82 bls.
Perkins, Goodwin & Co., Cameronia, Glasgow, 49 cs.
Maurice O'Meara Co., Bird City, Hango, 391 cs.
L. Schulman & Co., Bird City, Hango, 73 cs.
B. F. Drakenfeld & Co., Celtic, Liverpool, 34 cs.
Titan Shipping Co., Leviathan, Southampton, 16 cs.
National City Bank, Yorck, Bremen, 171 rolls.
Maurice O'Meara Co., Yorck, Bremen, 15 cs.

WRAPPING PAPER

International Forwarding Co., Deutschland, Hamburg, 31 cs.
Stewart Hartshorn Co., Cameronia, Glasgow, 113 webs.
C. K. MacAlpine Co., Stockholm, Gothenburg, 87 rolls, 83 bls.

PACKING PAPER

Steffens Jones Co., Ala, Rotterdam, 11 cs.

KRAFT PAPER

Arkell Safety Bag Co., Stockholm, Gothenburg, 62 rolls.

PARCHMENT PAPER

E. Dietzgen & Co., West Arrow, Antwerp, 2 cs.

PAINTED PAPER

Downing & Co., Paris, Havre, 43 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Minnewaska, London, 11 cs.
W. R. Noe & Sons, Paris, Havre, 1 cs.

TISSUE PAPER

Brooks Bros. & Co., Alaunia, Liverpool, 7 cs.
F. C. Strype, Alaunia, Liverpool, 17 cs.
Iwai & Co., Cal. Maru, Kobe, 5 cs.

BARYTA COATED PAPER

Globe Shipping Co., Yorck, Bremen, 82 cs.

GOLD COATED PAPER

C. B. Richard & Co., Yorck, Bremen, 2 cs.

SURFACE COATED PAPER

Gevaert Co. of America, Andyk, Rotterdam, 34 cs.

WRITING PAPER

R. Weil & Co., Liberty, Havre, 5 cs.

TRACING PAPER

E. Dietzgen & Co., Deutschland, Hamburg, 10 cs.

DECALCOMANIA PAPER

F. C. Strype, Deutschland, Hamburg, 78 cs.

COVER PAPER

International Forwarding Co., Deutschland, Hamburg, 9 cs.

COLORED PAPER

P. H. Petry & Co., Deutschland, Hamburg, 11 cs.

TRUNK PAPER

P. H. Petry & Co., Deutschland, Hamburg, 6 cs.

NOTE PAPER

H. Reeve Angel & Co., Inc., Minnewaska, London, 1 cs.

SILK PAPER

Globe Shipping Co., Andyk, Rotterdam, 9 cs.

PAPER TUBES

H. de Maguinn, Paris, Havre, 11 cs.

STRAW BOARD

A. Vuyk, Andyk, Rotterdam, 432 rolls.

MISCELLANEOUS PAPER

Wilkinson Bros. & Co., Inc., Andyk, Rotterdam, 6 cs.
Heemsoth, Basse & Co., Andyk, Rotterdam, 5 pgs.
C. H. Boulin, Paris, Havre, 87 cs.
Standard Products Corp., Paris, Havre, 64 cs.
Japan Paper Co., Paris, Havre, 9 cs.
The Surbrug Co., Paris, Havre, 18 cs.
T. Barrett & Son, Stockholm, Gothenburg, 242 bls., 29 rolls.
C. K. MacAlpine & Co., Stockholm, Gothenburg, 40 rolls, 20 bls.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Indep. Hall, Bordeaux, 94 bls. rags.
A. W. Fenton, Inc., Indep. Hall, Bordeaux, 103 bls. rags.
Goldman, Sachs & Co., Indep. Hall, St. Nazaire, 239 bls. rags.
Royal Manfg. Co., Skaneland, Genoa, 48 bls. bagging.
Royal Manfg. Co., Skaneland, Genoa, 125 bls. cotton waste.
E. Mayer, Deutschland, Hamburg, 10 bls. rags.
Castle & Overton, Inc., Deutschland, Hamburg, 113 bls. rags.
Atterbury & McKelvey, Deutschland, Hamburg, 196 bls. rags.
M. Maier Paper Mill Supply Co., Deutschland, Hamburg, 2 bls. rags.
G. M. Graves Co., Deutschland, Hamburg, 163 bls. rags.
L. H. Abenheimer, Deutschland, Hamburg, 86 bls. rags.
E. J. Keller Co., Inc., Deutschland, Hamburg, 143 bls. bagging.
E. J. Keller Co., Inc., Deutschland, Hamburg, 63 bls. rags.
The Barrett Co., Deutschland, Hamburg, 143 bls. rags.
Salomon Bros. & Co., Deutschland, Hamburg, 133 bls. rags.
Anglo-South American Trust Co., Ascania, London, 77 bls. rags.
E. J. Keller Co., Inc., Ala, Rotterdam, 642 bls. rags.
E. J. Keller Co., Inc., Ala, Rotterdam, 103 bls. bagging.
B. D. Kaplan, Ala, Rotterdam, 37 bls. rags.
Castle & Overton, Inc., West Arrow, Antwerp, 132 bls. bagging.
The Stone Bros. Co., Inc., West Arrow, Antwerp, 59 bls. rags.
Whaling Waste Products Co., West Arrow, Antwerp, 33 bls. jute waste.
National City Bank, Vardulia, London, 112 bls. rags.
Central National Bank, Alaunia, Liverpool, 11 bls. rags.
A. W. Fenton, Inc., Cameronia, Glasgow, 138 bls. rags.
Central National Bank, Cameronia, Glasgow, 89 bls. bagging.
Amsinck, Sonne & Co., Inc., Cameronia, Glasgow, 45 bls. rags.
Mechanics & Metals Natl. Bank, Cameronia, Glasgow, 67 bls. rags.
B. D. Kaplan, Celtic, Liverpool, 5 bls. rags.
Irving Bank-Columbia Trust Co., Yorck, Bremen, 36 bls. bagging.
Mechanics & Metals Natl. Bank, Yorck, Bremen, 61 bls. bagging.
Mechanics & Metals Natl. Bank, Yorck, Bremen, 16 bls. rags.
E. J. Keller Co., Inc., Yorck, Bremen, 390 bls. rags.
Amsinck, Sonne & Co., Inc., Yorck, Bremen, 127 bls. rags.
L. H. Abenheimer, Yorck, Bremen, 46 bls. bagging.
Equitable Trust Co., Yorck, Bremen, 105 bls. rags.
American Exchange Natl. Bank, Yorck, Bremen, 9 bls. rags.
Grace National Bank, Yorck, Bremen, 10 bls. rags.
Castle & Overton, Inc., Yorck, Bremen, 65 bls. rags.
M. Maier Paper Mill Supply Co., Andyk, Rotterdam, 33 bls. rags.
M. Maier Paper Mill Supply Co., Andyk, Rotterdam, 40 bls. bagging.
H. G. Lichtenstein, Andyk, Rotterdam, 2 bls. rags.
G. M. Graves Co., Andyk, Rotterdam, 2 bls. rags.
Chemical National Bank, Andyk, Rotterdam, 138 bls. rags.
E. J. Keller Co., Inc., Andyk, Rotterdam, 454 bls. rags.
E. J. Keller Co., Inc., Andyk, Rotterdam, 104 bls. bagging.
Leshner Paperstock Co., Andyk, Rotterdam, 35 bls. rags.
Seaboard National Bank, Andyk, Rotterdam, 284 bls. rags.
Darmstadt, Scott & Courtney, Andyk, Rotterdam, 68 bls. bagging.
A. W. Fenton, Inc., Paris, Havre, 20 bls. rags.
State Bank, Hellig Olav, Copenhagen, 2401 bls. bagging.
Acme Burlap Bag Co., Hellig Olav, Copenhagen, 108 bls. bagging.
Mechanics & Metals Natl. Bank, Bankdale, Marseilles, 212 bls. rags.
National Bank of Commerce, Bankdale, Marseilles, 108 bls. rags.
East River National Bank, Bankdale, Marseilles, 290 bls. rags.
A. W. Fenton, Inc., Bankdale, Marseilles, 66 bls. rags.
Brown Bros. & Co., Bankdale, Marseilles, 44 bls. rags.
East River National Bank, Bankdale, Barcelona, 81 bls. rags.
J. A. Faunce, Bankdale, Barcelona, 89 bls. jute waste.
E. J. Keller Co., Inc., Bankdale, Barcelona, 102 bls. rags.
J. M. Johnson, Conehatta, Manchester, 60 bls. bagging.

Imports of Paper and Paper Stock

(*Continued from page 73*)

Weil Bros., Conehatta, Manchester, 46 bls. rags.
M. Snedeker, Conehatta, Belfast, 82 bls. waste.
C. R. Spence, Stockholm, Gothenburg, 13 bls. rags.
Salomon Bros. & Co., Sinaia, Alexandria, 132 bls. rags.
New York Trust Co., Sinaia, Constantinople, 105 bls. bagging.
E. J. Keller Co., Inc., Sinaia, Constantinople, 171 bls. rags.
E. J. Keller Co., Inc., Geo. Washington, Bremen, 39 bls. bagging.
E. J. Keller Co., Inc., Geo. Washington, Bremen, 68 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 345 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 171 bls. bagging.
Atlas Waste Manfg. Co., Liberty, Havre, 52 bls. rags.
The Stone Bros. Co., Inc., Liberty, Havre, 89 bls. rags.
Castle & Overton, Inc., Liberty, Havre, 40 bls. rags.
D. M. Hicks, Liberty, Havre, 174 bls. rags.
V. Gulaup, Liberty, Havre, 130 bls. rags.
Robert Blank, Liberty, Havre, 71 bls. rags.
J. J. Patricof, Liberty, Havre, 99 bls. bagging.
Sterling Mill Supply Co., Liberty, Havre, 102 bls. rags.
E. J. Keller Co., Inc., Liberty, Havre, 35 bls. rags.
Atterbury Bros., Inc., Liberty, Havre, 96 bls. bagging.
Leshner Paperstock Co., Liberty, Havre, 37 bls. rags.
P. Berlowitz, Liberty, Havre, 50 bls. rags.
Royal Manfg. Co., Liberty, Dunkirk, 10 bls. rags.
Royal Manfg. Co., Liberty, Dunkirk, 83 bls. cotton waste.
Darmstadt, Scott & Courtney, Liberty, Dunkirk, 45 bls. rags.
P. Berlowitz, Liberty, Dunkirk, 44 bls. rags.
Castle & Overton, Inc., Liberty, Dunkirk, 75 bls. rags.
Castle & Overton, Inc., Liberty, Dunkirk, 63 bls. bagging.
Chemical National Bank, Londonier, Antwerp, 94 bls. rags.
Bank of New York, Londonier, Antwerp, 119 bls. rags.
E. J. Keller Co., Inc., Londonier, Antwerp, 86 bls. bagging.
Anglo-South American Trust Co., Londonier, Antwerp, 127 bls. flax waste.
Salomon Bros. & Co., Berlin, Bremen, 78 bls. rags.
Salomon Bros. & Co., Fuji Maru, Port Said, 104 bls. rags.
Salomon Bros. & Co., Thuringia, Hamburg, 93 bls. bagging.
Salomon Bros. & Co., A. Ballin, Hamburg, 513 bls. rags.
Salomon Bros. & Co., Saugus, Alexandria, 96 bls. rags.
Salomon Bros. & Co., West Tacook, Hamburg, 69 bls. bagging.
Salomon Bros. & Co., Storm King, Marseilles, 300 bls. rags.

OLD ROPE

Brown Bros. & Co., Deutschland, Hamburg, 5 bls.
The Stone Bros. Co., Inc., Chickasaw, Hull, 230 coils.
Brown Bros. & Co., Marengo, Hull, 250 coils.
Brown Bros. & Co., Vardulia, London, 112 coils.
M. Maier Paper Mill Supply Co., Andyk, Rotterdam, 115 coils.
Brown Bros. & Co., Andyk, Rotterdam, 164 coils.
International Purchasing Co., Andyk, Rotterdam, 377 coils.
W. Schall & Co., Bankdale, Barcelona, 43 coils.
Brown Bros. & Co., Stockholm, Gothenburg, 42 coils.
Brown Bros. & Co., Londonier, Antwerp, 100 coils.
The Stone Bros. Co., Inc., Londonier, Antwerp, 52 coils.

ROPE WASTE

N. E. Berzen, Skaneland, Barcelona, 42 bls.

MANILA ROPE

Ellermans' Wilson Line, Minnewaska, London, 231 coils.
Manufacturers Trust Co., Pres. Garfield, Manila, 150 pgs.

WOOD PULP

A. P. W. Paper Co., Laly, Sheet Harbor, bulk wood pulp, 1300 tons.
Buck, Kiaer & Co., Inc., Yorck, Bremen, 1600 bls. wood pulp (sulphite).
Buck, Kiaer & Co., Inc., Hellig Olav, Oslo, 600 bls. sulphite pulp.
Bulkley, Dunton & Co., Andyk, Rotterdam, 1132 bls. wood pulp.
J. Anderson & Co., Stockholm, Gothenburg, 250 bls. sulphite pulp.
Scandinavian Pulp Agency, Inc., Stockholm, Gothenburg, 1524 bls. kraft pulp.
Bulkley, Dunton & Co., Stockholm, Gothenburg, 500 bls. sulphite pulp.
E. M. Sergeant & Co., Stockholm, Gothenburg, 943 bls. sulphite pulp.
E. M. Sergeant & Co., Stockholm, Gothenburg, 598 bls. dry soda pulp.
Johanson, Wales & Sparre, Inc., Stockholm, Gothenburg, 359 bls. dry soda pulp.
Price & Pierce, Ltd., Stockholm, Gothenburg, 1080 rolls wet pulp.
J. Anderson & Co., Norefjord, Sarpsborg, 2802 bls. sulphite pulp, 474 tons.
Castle & Overton, Inc., Ala, Rotterdam, 140 bls. wood pulp, 28 tons.

WOOD PULP BOARDS

Lagerloef Trading Co., Bird City, Hango, 98 bls.
Wilkinson Bros. & Co., Inc., Stockholm, Gothenburg, 10 rolls.

WOOD FLOUR

The Hansa Co., Ala, Rotterdam, 500 bags, 25,375 kilos.
The Bakelite Co., Ala, Rotterdam, 668 bags, 51,200 kilos.

CASEIN

National City Bank, Leighton, Buenos Aires, 421 bags.

NEWPORT NEWS IMPORTS

WEEK ENDING APRIL 10, 1926

Castle & Overton, Inc., Aquarius, Germany, 119 bls. rags.
Castle & Overton, Inc., Ostende, Belgium, 740 bls. rags.
Castle & Overton, Inc., City of Weatherford, Germany, 68 bls. bagging.
Castle & Overton, Inc., Ostende, France, 112 bls. rags.
E. J. Keller Co., Inc., Youngstown, Hamburg, 62 bls. bagging.
E. J. Keller Co., Inc., Leerdam, Rotterdam, 75 bls. bagging.

NORFOLK IMPORTS

WEEK ENDING APRIL 10, 1926

Parsons & Whittemore, Inc., Bird City, Hango, 494 rolls news print.
Parsons & Whittemore, Inc., Bird City, Hango, 181 bls. news print.
American Paper Co., Bird City, Hango, 90 rolls news print.
American Paper Co., Bird City, Hango, 18 bls. news print.
Old Dominion Paper Co., Bird City, Hango, 49 cs. printing paper.
Lagerloef Trading Co., Bird City, Hango, 1080 bls. wood pulp boards.
Castle & Overton, Inc., Westerner, Rotterdam, 423 bls. wood pulp.

PORTLAND, ME., IMPORTS

WEEK ENDING APRIL 10, 1926

Waterfall Paper Co., Norefjord, Hafslund, 4948 bls. sulphite pulp, 794 tons.

PHILADELPHIA IMPORTS

WEEK ENDING APRIL 10, 1926

E. J. Keller Co., Inc., Indep. Hall, Bordeaux, 272 bls. rags.
The Stone Bros. Co., Inc., Indep. Hall, St. Nazaire, 745 bls. rags.
Katzenstein & Keene, Inc., Indep. Hall, St. Nazaire, 260 bls. rags.
E. J. Keller Co., Inc., Indep. Hall, Havre, 229 bls. rags.
Robert Blank, Skaneland, Marseilles, 624 bls. rags.
S. Birkenstein Sons, Skaneland, Marseilles, 71 coils old rope.
S. Birkenstein Sons, Skaneland, Marseilles, 14 bls. rags.
E. J. Keller Co., Inc., Skaneland, Barcelona, 162 bls. rags.
Stephano Bros., Liberty, Havre, 30 cs. cigarette paper.
Penn Rag & Metal Co., Liberty, Havre, 43 bls. rags.
Philadelphia National Bank, Liberty, Havre, 93 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 118 bls. rags.
Leshner Paperstock Co., Liberty, Havre, 140 bls. rags.
D. I. Murphy, Liberty, Havre, 106 bls. rags.
D. I. Murphy, Liberty, Havre, 86 bls. bagging.
S. Birkenstein Sons, Liberty, Havre, 94 bls. rags.
S. Birkenstein Sons, Liberty, Dunkirk, 180 bls. rags.
S. Birkenstein Sons, Liberty, Dunkirk, 20 bls. bagging.
D. I. Murphy, Liberty, Dunkirk, 276 bls. rags.
A. W. Fenton, Inc., Liberty, Dunkirk, 51 bls. rags.
E. Butterworth & Co., Inc., Liberty, Dunkirk, 114 bls. flax waste.
Salomon Bros. & Co., Liberty, Dunkirk, 125 bls. rags.
E. J. Keller Co., Inc., American, Shanghai, 200 bls. rags.
E. J. Keller Co., Inc., City of St. Joseph, Genoa, 75 bls. rags.
E. J. Keller Co., Inc., West Campgaw, Hamburg, 288 bls. rags.
Castle & Overton, Inc., Germany, 221 bls. rags.
Castle & Overton, Inc., ———, Antwerp, 1778 bls. wood pulp.
Castle & Overton, Inc., Western Plains, Antwerp, 337 bls. rags.
Castle & Overton, Inc., Oregon Maru, Germany, 115 bls. rags.
Castle & Overton, Inc., London Exchange, London, 6 bls. old rope.
Castle & Overton, Inc., London Exchange, London, 59 bls. paper stock.
Castle & Overton, Inc., London Exchange, London, 202 bls. rags.
Castle & Overton, Inc., Holstein, Germany, 32 bls. rags.
Castle & Overton, Inc., Hektor, Spain, 100 bls. rags.
Robert Blank, West Campgaw, Hamburg, 64 bls. rags.
Robert Blank, Western Plains, Rotterdam, 130 bls. rags.
Salomon Bros. & Co., West Campgaw, Hamburg, 172 bls. rags.
Salomon Bros. & Co., Westpool, Hamburg, 169 bls. rags.
Salomon Bros. & Co., Gottingen, Bremen, 146 bls. rags.
Salomon Bros. & Co., Levinza, Alexandria, 140 bls. rags.
Salomon Bros. & Co., Braga, Alexandria, 340 bls. rags.

BOSTON IMPORTS

WEEK ENDING APRIL 10, 1926

Lagerloef Trading Co., Bird City, Hango, 167 bls. wood pulp boards.
Parsons & Whittemore, Inc., Bird City, Hango, 238 rolls news print.
Equitable Trust Co., Natirar, Gothenburg, 4122 bls. sulphate pulp.
Robert Blank, West Celina, Hamburg, 130 bls. rags.
Robert Blank, Sac City, Rotterdam, 300 bls. rags.
Castle & Overton, Inc., Sac City, Antwerp, 1234 bls. wood pulp.
E. J. Keller Co., Inc., Ala, Rotterdam, 46 bls. rags.
Salomon Bros. & Co., West Celina, Bremen, 77 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING APRIL 10, 1926

W. H. Masson, Conehatta, Belfast, 125 bls. rags.
Castle & Overton, Inc., Maryland, Belgium, 2848 bls. wood pulp.
Castle & Overton, Inc., Westerner, Rotterdam, 1921 bls. wood pulp.
E. J. Keller Co., Inc., Maryland, Karlsruhe, 1575 bls. wood pulp.
E. J. Keller Co., Inc., Crefeld, Bremen, 415 bls. rags.
E. J. Keller Co., Inc., Crefeld, Bremen, 119 bls. bagging.

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, April 14, 1926.

The local paper market continues to exhibit a strong tendency and the demand for the various grades of paper is quite satisfactory. Prices are holding up very well and there have been no rumors around of any unusual concessions being made. Sales organizations of the leading paper houses are generally satisfied with the volume of business being transacted and it appears evident that so far this year the paper business has been more prosperous than in the corresponding period of last year.

Demand for news print is persistent. Considerable spot business has been recorded, while contract withdrawals have been very heavy. According to the News Print Service Bureau, production in the United States and Canada reached 303,003 tons in March, a record figure. The United States output was 12 per cent greater in the first quarter of the year than in the first three months of 1925, while the Canadian output was 18 per cent greater. At the end of March stocks of news print at United States mills totalled 18,352 tons and at Canadian mills, 14,800 tons.

The various grades of paper boards continue in good request although prices are slightly weaker. A fairly good volume of inquiries are being received for future business. All grades of fine paper are in strong demand at formerly quoted prices. Sales of coarse paper and are being well maintained and prices show no signs of weakening.

Mechanical Pulp

Firmness continues to prevail in the ground wood market and prices of both domestic and foreign mechanical pulp remain steady. Although production is increasing somewhat now that the weather conditions are becoming more favorable, spot offerings are still limited. Scandinavian ground wood is quoted at from $40 to $45 a ton, ex dock, and domestic and Canadian mechanical pulp is selling at from $30 to $33 a ton, at pulp mill.

Chemical Pulp

Conditions in the chemical pulp market are practically unchanged and with both foreign and domestic mills sold well ahead, prices remain very firm. The Swedish output for next year appears to be in good request and European consumers in particular are evincing great interest in this product. Foreign kraft is still steady at from 3.25 to 3.50, ex dock, Atlantic ports, while American kraft is selling at from 3.00 to 3.50, at pulp mill.

Old Rope and Bagging

Domestic old rope has been fairly active at recently quoted prices. Foreign old rope remains quiet with offerings sufficient to take care of the present smal lrequirements. The demand for bagging has slightly improved and prices are being maintained fairly well.

Rags

The paper mills are beginning to display a little more interest in the rag market. Old domestic rags are in good demand at firm prices while the request for new domestic rags also shows signs of improving. Roofing rags are in moderate demand at nominal prices. No change has been noticed in the foreign rag situation and high prices continue to be quoted abroad.

Waste Paper

Low grades of waste paper are in demand from the board mills and prices, as a whole, rule steady. The paper mills do not appear to be showing much interest at present in the higher grades of waste paper although prices are felt ot eb reasonable for the time of the year. Ledgers and writings are generally quiet and unaltered. White news cuttings, however, are in fairly good request.

Twine

The twine market has become somewhat qtieter and the bulk of the business being transacted is mostly along routine lines. Prices are holding up very well so far, however, and observers of the market are mostly optimistic regarding the future prospects of the industry.

Lewmar Paper Co. Leases New Quarters

[FROM OUR REGULAR CORRESPONDENT]

NEWARK, N. J., April 12, 1926.—The Lewmar Paper Company, now located at 72 Clinton street, wholesale distributors of printing paper, has just leased, through the offices of Feist & Feist, Inc., the lower portion of the building at 72-76 Mechanic street, between Lawrence and Mulberry streets, for a long term of years. The lease was made for Leopold Meyer, owner of the building and former head of the American Undergarment Company. The Lewmar Paper Company, when improvements have been completed, will occupy space approximating about 12,000 square feet. The lease also carried with it an option for an additional term, as well as an option to purchase the property.

Standards for Tissue Paper

Members of the Tissue Paper Manufacturers Association and the National Paper Trade Association are sending out with their mail a little pamphlet entitled "Standards for Tissue Paper." These standards were adopted by the National Paper Trade Association and the Tissue Paper Manufacturers Association, March 31, 1926.

It is understood from Washington that 80 per cent of the industry have signed up on the acceptance of these standards and the thing is proving a big success. The paper merchants are very much inclined to buy goods that bear the association seal or label, because they know that the association stands back of these goods as to standard size and count.

Connecticut Valley Superintendents to Meet

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., April 12, 1926.—The Connecticut Valley Division of the American Pulp and Paper Mill Superintendents Association will meet April 24-26 at the Hotel Garde, New Haven, Conn.

The Bird Machinery Company will have charge of the meeting. This meeting will be open to all who wish to attend. Acceptance should be sent to Silas Weiser, National Folding Box Company, New Haven, Conn., not later than April 22. Registration will start at 11:30 a. m. Meeting at 2 p. m., with banquet at 7 p. m.

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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, April 14, 1926.

During the past week, trading in the local chemical market was mostly along routine lines. Regular contract deliveries have been moving at a good pace and the manufacturers appear to be satisfied with the present position of the industry. While some concessions have been made on desirable contract business, according to reports from reliable quarters, prices are generally holding well up to schedule.

BLANC-FIXE.—Demand for both the pulp and powder is fairly persistent, especially for prompt shipment. The pulp is still selling at from $53 to $55 per ton. The powder is quoted at from 3¼ to 4½ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is in a steady position and production is not in excess of requirements. Manufacturers are said to be well sold ahead on contract and prices are being well maintained. Bleaching powder is quoted at from $2 to $2.40 per 100 pounds, in large drums, at works.

CAUSTIC SODA.—Contract withdrawals of caustic soda are being maintained in a satisfactory manner. The market is fairly steady although there are persistent reports of shading. Quotations on caustic soda range from $3.10 to $3.15 per 100 pounds, at works. Spot car lots are quoted at from $3.20 to $3.25 per 100 pounds.

CASEIN.—Both imported and domestic casein are in good demand. Spot offerings are somewhat limited and prices are very firm. Imported casein is now selling at 17 cents a pound and domestic at from 15 to 17 cents, all in bags.

CHINA CLAY.—The china clay market is practically unchanged. The spot demand is quiet at present and contract withdrawals are moving in moderate volume. Imported china clay is quoted at from $13 to $22 a ton, ship side. Domestic washed clay is selling at $8 a ton, at mine, and pulverized at $10 a ton.

CHLORINE.—No radical changes have taken place in the chlorine market. Shipments on contract are proceeding in good volume and prices are being well maintained. Chlorine is still quoted at 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation is half a cent higher.

ROSIN.—The demand for rosin is mostly confined to immediate or nearby requirements. Prices remain as previously quoted. At the naval stores, the grades of rosin used in the paper mills are offered at from $11.10 to $13.50 per 280 pounds, ship side, in barrels.

SALT CAKE.—The condition of the salt cake market is satisfactory. Shipments on contract are moving at a good rate and prices are holding up very well. Stocks are about sufficient to meet the prevailing request. Salt cake continues to sell at from $17 to $20 a ton, in bulk, at works.

SODA ASH.—The soda ash market is steady in tone and prices are being well maintained. Contract withdrawals are proceeding on a large scale and plants are operating at near capacity to cope with the demand. Contract quotations, in car lots, at works, per 100 pounds, range as follows: In bulk, $1.25; in bags, $1.38, and in barrels, $1.63.

STARCH.—Demand for starch is persistent and prices remain steady and unaltered. The position of the market is firmer, due to the strength of the raw material. Special paper maker's starch is still selling at $3.32 per 100 pounds, in bags, and $3.49 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The sulphate of alumina market is rather quiet at present, although contract withdrawals are moving in fairly good volume. Prices remain unchanged from formerly quoted levels. Sulphate of alumnia is still selling at from $2 to $2.05 per 100 pounds, for the iron free, in bags, at works, and at from $1.40 to $1.45 for the commercial grades.

SULPHUR.—The demand for sulphur continues strong. Shipments against contract are satisfactory for the season of the year and prices are very firm. The quotation on the grade of sulphur used by the paper mills ranges from $14 to $15 a ton, in bulk, at mine, and at from $20 to $21 a ton, ship side.

TALC.—The talc market continues to exhibit a strong tendency. The demand for this product is steady and contract withdrawals are moving at an excellent pace. American talc is quoted at $16 to $18 a ton, at eastern mines, and at from $17 to $25 a ton at Western mines. French talc is selling at from $18 to $22 a ton.

Franklin's Paper Industry Reviving

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 12, 1926.—Franklin will witness a real revival in the paper trade judging from present indications. A short time ago the Superior Paper Company's plant on Oxford Road, just across the Miami river, from the central section of town, was sold at receiver's sale for $90,100, the appraised value being approximately $120,000.

At the time of the sale, it was not known what plans would be followed. George Williams, of Cincinnati, was the bidder on the plant and it was turned over to him.

For several years the Superior Paper Company, devoted its manufacture exclusively to tissues and the equipment for this product is said to have been complete.

It was variously reported that the mills would resume on the manufacture of tissue or the factory would be turned into another line entirely. The building, a substantial brick structure, once was devoted to the making of wheels.

The Superior mill owners, as was announced last week, have transferred the plant to the Philip Carey Roofing Company, of Lockland, which will manufacture asbestos pipe covering and a heavy grade of wrapping paper for wrapping rolls of roofing paper.

The Philip Carey Company, which is one of the largest manufacturers of roofing material in the country, and consequently a major Miami Valley industry, will begin remodeling operations at once.

For many years the Logan & Long Company, of Franklin, has manufactured roofing materials. It conducts a large plant on the Dixie Highway, at the Southern end of Franklin. A branch of the industry also is located in Atlanta, Ga.

The Logan & Long Company is just completing repairs to its stills which were destroyed by fire several weeks ago. The asphalt vats are located in a brick and frame building separate from the main mill or the fire loss would have been much heavier.

The mill force joined the Franklin department in battling the blaze which involved the entire department and which continued for several hours.

Fortunately the company was enabled to rebuild without delay and the general operation of the company was not suspended.

Draft Waxed Paper Questionnaire

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 14, 1926.—It is understood that the waxed paper manufacturers have drafted a tentative questionnaire which is to be discussed by the manufacturers and also to be taken up with the officials of the Simplified Practice Division of the Department of Commerce, in connection with the simplification program in that industry.

NEWS PRINT IN ALASKA

(*Continued from page 40*)

ment of its resources is not subject to the vagaries of a Canadian parliament and even should our Congress get enacting things in reverse, they generally listen to the protests of industry and capital before much harm is done. There surely can be no sounder form of investment (Canada not excepted) than that of the development of the news print industry in Alaska, in the writer's estimation, and it will not be ten years hence, as some eastern financiers would have it, in order that they might first get a return from their stupendous Canadian investments, but is imminent

TABER PUMPS

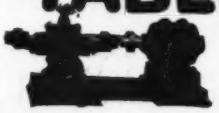

Fig. 510 illustrates Taber SL Double Suction Centrifugal Pump.

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Beaver Products Corp., 7½s 1942	105	108
Bedford Pulp & Paper, 6½s 1942	95	100
Berkshire Hills Paper, 8s 1941	60	80
Berlin Mills, 5s 1931	98	...
Brown Paper Co., 1st 5½s 1946	92	96
Bryant Paper Co., 6s 1942	97	101
Cape Breton Pulp & Paper, 6s 1932	100	...
Carthage Sulphite Pulp & Paper, 8s 1941	13	...
Central Paper Serial 6, 6½s 1942	89	...
Central Paper, 7s 1933	86	...
Champion Coated Paper, 6s 1926 to 1932	98	...
Champion Fibre, 8s 1930	100	...
Champion Paper Corp'n, 1st 6s 1945	96	100
Cherry River Paper, 5s 1929	98	101*
Cornell Wood Products, 7½s 1937	102	105*
Crown Willamette Paper, 6s 1951	97	101
Donnaconna Paper, 6s 1940	98	101
Dells Paper & Pulp Serial, 6s 1926-38	*95	...
Eastern Mfg. Co., 7s 1938	*85	90*
Eddy Paper, 7½s 1931	98	...
Escanaba Paper Serial, 6s 1926-3½	88	95
Filer Fibre Serial, 7s 1926-39	75	90
Fort Orange Paper, 7s 1942	95	100*
Fort William Paper, 7s 1926 to 1937	96	...
Fort William Paper Serial, 7s 1926-31	*93	...
Fox River Paper, 7s 1931	99	...
Gilbert Paper Co., 6½s 1926-29	99	...
Hammermill Paper, 6s 1939	99	...
Kalamazoo Veg. Parchment, 6s 1938	97	...
Lake Superior Pulp & Paper, 6s 1941	102	...
Marinette & Menominee, 7½s 1936	102	...
Menasha Printing & Carton, 6½s 1939	99½	...
Mengel Company, 7s 1926 to 1934	100*	102
Miami Paper, 7½s 1931	98	...
Nekoosa Edwards, 1st Ref. 6s 1928 to 1942	96	99*
Orono Pulp & Paper, 6s 1943	96	...
Orono Pulp & Paper, 5s 1941	90	...
Oswego Falls Corp'n, 8s 1942	101	...
Oxford Paper, 6s 1947	100	...
Paepcke Paper Mil's, 7s 1930	99	...
Parsons Pulp & Lumber, 7s 1928	94	...
Parker Young Co., 6½s 1944	96	99
Eastern Mfg. Co., 7s 1938	85*	90*
Paterson Parchment Paper, 6s 1938	99	...
Penobscot Chemical Fibre, 6s 1942	98	...
Peshtigo Paper, 7s 1942	50	75
Poland Paper, 7s 1930	97	...
Port Alfred Pulp, 6½s 1943	*96	...
Richardson Co., 6s 1938	97	...
River Raisin Paper, 8s 1936	102	105
Spanish River Pulp & Paper, 8s 1941	106	110
Stevens & Thompson Paper, 6s 1942	87	...
St. Croix Paper, 5s 1926-37	93	98*
St. Regis Paper Serial, 6½s 1926-35	98½	...
Tait Paper & Color Industries, 6s 1934	90	...
Taggart Bros. Co., 6s 1944	97	100*
Ticonderoga Pulp & Paper, 5s 1930	88	92*
Ticonderoga Pulp & Paper, 6s 1940	92½	95*
Warren (The S. D.) Company, 6s 1945	96½	100
Watab Paper, 6½s 1942	99	103
Waterway Paper Products, 7s 1926-27	95	...
Westfield River Paper, 7s 1926-43	Wanted	...
Whittaker Paper, 7s 1942	100	102

STOCKS	BID	ASKED
A. P. W. Paper Co., 7% Pfd.	95	100
Beaver Board, Pfd.	34	37
Brown Corpn, 7% Pfd.	97	100*
Bryant Paper, Cap.	12	...
Bryant Paper, Pfd.	6	...
Diem & Wing, 7% Cum. Pfd.	90	93*
Celotex Co., Com.	113	120*
Celotex Co., Pfd.	80	85*
Crown Willamette, 7% A. Pfd.	97	100
Donnaconna Paper, Com	49	54
Donnaconna Paper, Pfd.	95	100
Eastern Mfg Co., 1st Pfd.	30	35
Great Northern Paper, Cap.	255	265
Kalamazoo Veg Parchment	7	10*
Marathon Paper Mills, Common	125	...
Louis DeJonge Co., 7% Pfd	95	100*
Munissing Paper, Common	12	15*
Nashua Gummed & Coated, 7% Pfd.	90	93*
Oglesby Paper Co., 6% Cum. Pfd.	85	90*
Orono Pulp & Paper, 8% Capital	60	70
Oxford Papers, Com.	102	...
Oxford Paper Co., Pfd.	100	105
Penobscot Chemical Fibre, Common	65	75*
Richardson Co., 7% Pfd.	103	...
Rubberoid Company	61	64
St. Croix Paper	150	170
St. Regis Paper Co., 7% Cum. Pfd.	97	100
West Virginia Pulp and Paper, Cap.	45	50
West Virginia Pulp and Paper, Pfd.	97	102
Whittaker Paper, 7% Cum. Pfd.	98	101
Whittaker Paper	100	105

* Nominal

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine Sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ 3.65
Rolls, transit	3.75	@ 4.25
Sheets	4.00	@ 4.25
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	7.00	@ 9.75
M. F.	6.25	@ 8.75
Coated and Enamel	8.00	@15.00
Lithograph	8.00	@15.00
Tissues—Per Ream—		
White No. 1	.80	@ 1.00
Anti-Tarnish	1.10	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .85
Kraft	.90	@ 1.00
Manila	.75	@ .85
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	5.00	@ 5.50
Southern	4.62½	@ 5.25
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
S. Screening	3.00	@ 3.50
Card Middles	4.00	@ 5.00
Boards—per ton—		
News	47.50	@50.50
Straw	57.50	@60.00
Chip	45.00	@47.50
Binders' Boards	72.50	@77.50
Sgl. Mla. Ll. Chip	57.50	@60.00
Wood Pulp	70.00	@75.00
Container	65.00	@67.50
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.75	@ 2.00
Ground Wood—		
Screenings	20.00	@25.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	40.00	@42.00
Dry	42.00	@45.00
(F. o. b. Mill)		
No. 1 Domestic	30.00	@33.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	4.10	@ 4.50
Easy Bleaching	3.55	@ 3.60
No. 1 strong unbleached	3.15	@ 3.35
Mitscherlich unbleached	3.30	@ 3.50
No. 2 strong unbleached	2.90	@ 3.10
No. 1 Kraft	3.25	@ 3.50
Sulphate—		
Bleached	3.75	@ 4.00
(F. o. b. Pulp Mill)		
Sulphite (Domestic)—		
Bleached	4.00	@ 4.75
Easy Bleaching Sulphite	3.00	@ 3.25
News Sulphite	2.90	@ 3.00
Mitscherlich	3.25	@ 3.75
Kraft (Domestic)	3.00	@ 3.50
Soda Bleached	4.00	@ 4.25

Domestic Rags

New Rags

Prices to Mill f. o. b. N. Y.

Shirt Cuttings—		
New White, No. 1.	13.00	@13.50
New White, No. 2.	8.00	@ 8.50
Silesias No. 1	8.50	@ 9.00
New Unbleached	12.75	@13.25
Washables	5.75	@ 6.25
Fancy	6.50	@ 7.00
Blue Overall	8.75	@ 9.25
New Blue Prints	6.50	@ 7.00
New Soft Blacks	4.75	@ 5.00
Mixed Khaki Cuttings	5.75	@ 6.25
Pink Corset Cuttings	10.50	@11.00
Pink Muslin	10.00	@10.50
New Light Seconds	3.50	@ 3.75
O. D. Khaki Cuttings	6.00	@ 6.50
Men's Corduroy	4.75	@ 5.25
New Mixed Blacks	3.75	@ 4.25

Old Rags

White, No. 1—		
Repacked	6.50	@ 7.00
Miscellaneous	6.00	@ 6.25
White, No. 2—		
Repacked	4.00	@ 4.25
Miscellaneous	3.50	@ 3.75
St. Soiled, White	2.75	@ 3.00
Thirds and Blues—		
Repacked	3.50	@ 3.75
Miscellaneous	2.65	@ 2.85
Black Stockings	3.75	@ 4.00
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.66	@ 1.70
No. 3	1.46	@ 1.50
No. 4	1.40	@ 1.50
No. 5A	.95	@ 1.05

Foreign Rags

New Light Silesias	9.00	@10.00
Light Flannelettes	10.25	@11.25
Unbleached Cottons	13.00	@14.00
New White Cuttings	13.50	@14.00
New Light Oxfords	9.50	@10.00
New Light Prints	8.50	@ 9.00
New Mixed Cuttings	4.25	@ 4.50
New Dark Cuttings	4.00	@ 4.25
No. 1 White Linens	8.50	@ 9.00
No. 2 White Linens	7.25	@ 8.25
No. 3 White Linens	6.00	@ 6.50
No. 4 White Linens	3.75	@ 4.25
Old Extra Light Prints	3.50	@ 4.00
Ord. Light Prints	3.00	@ 3.25
Med. Light Prints	2.50	@ 3.00
Dutch Blue Cottons	3.25	@ 3.50
German Blue Cottons	2.50	@ 2.75
German Blue Linens	3.50	@ 3.75
Checks and Blues	2.50	@ 3.00
Linsay Garments	2.00	@ 2.10
Dark Cottons	1.90	@ 2.00
Shoppery	1.80	@ 1.90
French Blues	3.25	@ 3.50

Bagging

Prices to Mill f. o. b. N. Y.

Gunny No. 1—		
Foreign	3.60	@ 4.00
Domestic	3.75	@ 4.00
Wool Tares, light	2.90	@ 3.10
Wool Tares, heavy	2.90	@ 3.10
Bright Bagging	2.75	@ 2.90
Mixed Bagging	2.30	@ 2.40
Sound Bagging	2.10	@ 2.20
Small Mixed Rope	2.00	@ 2.50
Manila Rope—		
Foreign	5.00	@ 5.25
Domestic	5.75	@ 6.00
New Burlap Cut	4.00	@ 4.25
Hessian Jute Threads—		
Foreign	4.50	@ 5.00
Domestic	4.25	@ 4.75

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, White, No. 1	3.65	@ 3.85
Hard, White, No. 2	3.25	@ 3.35
Soft, White, No. 1	2.95	@ 3.20
Flat Stock—		
Stitchless	1.25	@ 1.35
Overissue Mag.	1.25	@ 1.35
Solid Flat Book	1.10	@ 1.20
Crumpled No. 1	.80	@ .90
Solid Book Ledger	1.75	@ 2.00
Ledger Stock	1.60	@ 1.70
New B. B. Chips	.60	@ .70
Manilas—		
New Env. Cut	2.65	@ 2.80
New Cut No. 1	1.65	@ 2.00
Extra No. 1 old	1.20	@ 1.30
Print	.70	@ .80
Container Board	.60	@ .65
Bogus Wrapper	.75	@ .85
Old Krafts Machine Compressed bales	1.80	@ 2.00
News—		
No. 1 White News	1.75	@ 1.90
Strictly Overissue	.65	@ .75
Strictly Folded	.60	@ .65
No. 1 Mixed Paper	.47½	@ 52½
Common Paper	.30	@ .35

Twines

(F. o. b. Mill)

Cotton—		
No. 1	.35	@ .36
No. 2	.33	@ .34
No. 3	.31	@ .33
B. C., 18 basis	.39	@ .41
A. B. Italian, 18 basis	.56	@ .61

Finished Jute—			
Dark 18 basis	.33	@	.34
Light 18 basis	.35	@	.37
Jute Wrapping, 3-6 Ply—			
No. 1.	.25	@	.27
No. 2.	.23½	@	.25½
Tube Rope—			
4-ply and larger	.22	@	.23
Fine Tube Yarn—			
5-ply and larger	.26	@	.30
4-ply	.27	@	.31
3-ply	.29	@	.33
Unfinished India—			
Basis	.21	@	.22
Paper Makers' Twine			
Balls	.17	@	.19
Box Twine, 2-3 ply	.19	@	.21
Jute Rope	.24	@	.44
Ameri. Hemp, 6	.30	@	.32
Sisal Hay Rope—			
No. 1 Basis	.20	@	.22
No. 2 Basis	.18	@	.20
Sisal Lath Yarn—			
No. 1	.18	@	.20
No. 2	.16	@	.18
Manila Rope	.26	@	.28

CHICAGO

Paper

F. o. b. Mill

All Rag Bond	.35	@	.40
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite	.09	@	.12
Sulphite Bond	.07½	@	.11
Sulphite Ledger	.09¼	@	.12¼
Superfine Writing	.18	@	.24
No. 1 Fine Writing	.14	@	.18
No. 2 Fine Writing	.12	@	.14
No. 3 Fine Writing	.09	@	.12
No. 1 M. F. Book	.05½	@	.07½
No. 1 S. & S. C. Book	.06	@	.07¾
Coated Book	.07½	@	.10
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¼
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¾	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butchers' Manila	.04	@	.04¼
No. 1 Kraft	.06	@	.06½
Southern Kraft	.04¾	@	.05
No. 2 Kraft	.05¼	@	.05¾
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue, 24x36 sheet	.07¼	@	.07¾
White Tissue, 20x30 sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	45.00	@	47.50
Solid News	48.50	@	50.00
Manila Line Chip	57.50	@	60.00
Container Lined—			
(Delivered Central Territory)			
85 Test	—	@	75.00
100 Test	—	@	80.00

Old Papers

F. o. b. Chicago

Shavings—			
No. 1 Hard White	3.50	@	3.60
White Envel. Cuttings	3.50	@	3.60
No. 1 Soft Shav.	2.90	@	3.00
No. 1 Mixed	—	@	—
No. 2 Mixed	1.15	@	1.20
Ledger and Writings	1.55	@	1.60
Solid Books	1.25	@	1.35
No. 1 Light Books	1.00	@	1.05
Blanks	1.80	@	2.00
Kraft	2.50	@	2.75
New Kraft Cuts	2.70	@	2.80
Manila Envelope Cuttings	2.40	@	2.50
Ex. No. 1 Manila	2.00	@	2.10
Print Manila	.95	@	1.10
Folded News (overissue)	.80	@	.90
Old Newspapers—			
No. 1	.75	@	.80
No. 2	.70	@	.75
Mixed Papers—			
No. 1	.65	@	.70
No. 2	.50	@	.60
Roofing Stocks, f. o. b. Chicago, Net Cash—			
No. 1	45.00	@	46.00
No. 2	38.00	@	42.00
No. 3	37.00	@	40.00
No. 4	37.00	@	40.00

BOSTON

Paper

Ledgers—			
Sulphite	.08½	@	.16
Rag content	.20	@	.35
All Rag	.38	@	.50
Bonds—			
Sulphite	.07½	@	.10½
Rag content	.17	@	.45
All Rag	.36½	@	.51
Writings	.08	@	.22
Superfines	.22	@	.50
News	.04	@	.04½
Book, Super	.08	@	.10
Book, Coated	.09	@	.14
Coated Litho	.09½	@	.15
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.05	@	.05
Manila, Sul. No. 2	.03¼	@	.04½
No. 1 Kraft	.05¾	@	.06¼
No. 2 Kraft	.05	@	.06
Common Bogus	.02½	@	—
Straw Board	—	@	50.00
News Board	—	@	45.00
Chip Board	—	@	47.50
Single Manila Pulp lined board	57.50	@	60.00
Single White, patent coated board	75.00	@	82.50
Wood Pulp Board	80.00	@	85.00
Binder Boards	68.00	@	85.00
Tarred Felts—			
Regular	61.00	@	63.00
Slaters	66.00	@	68.00
Best Tarred, 1 Ply, roll	1.50	@	1.60
Best Tarred, 2 Ply, roll	1.70	@	1.80
Best Tarred, 3 Ply, roll	2.00	@	2.10

Old Papers

Shavings—			
No. 1 Hard White	3.75	@	4.00
White Blank News	1.75	@	2.00
Manila Env. Cuttings	2.80	@	3.00
No. 2 Hard White	3.25	@	3.50
No. 1 Soft White	.02¾	@	.03
No. 2 Soft White	.02½	@	.03
No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.00	@	1.75
No. 1 Books, Heavy	1.25	@	—
No. 1 Books, Light	—	@	1.25
No. 1 New Manila	2.50	@	2.60
No. 1 Old Manila	1.75	@	2.00
Print Manila	1.05	@	1.20
Old Kraft	2.25	@	2.35
Overissue News	1.00	@	1.10
Old Newspapers	.70	@	.85
No. 1 Mixed Paper	.60	@	.47½
Box Board, Chip	.50	@	.60

Bagging

Price f. o. b. Boston

Gunny, No. 1—			
Foreign	3.85	@	—
Domestic	3.75	@	—
Manila rope	5.00	@	—
Mixed Rope	2.25	@	—
Scrap burlaps	2.75	@	—
Wool Tares, heavy	2.90	@	—
Mixed Strings	2.25	@	—
New Burlap Cutting	3.12½	@	—

Domestic Rags (New)

Price f. o. b. Boston

Shirt Cuttings—			
New White No. 1	.13½	@	.14
Silesias, No. 1	.08	@	.10
New Unbleached	.14½	@	—
Fancy	.08	@	—
Washable	.07	@	—
Cottons—According to Grades— Blue—			
Blue overalls	.10½	@	—
New Black, soft	.05	@	—
Khaki Cuttings	.07	@	—
Corduroy	.05	@	—
New Canvas	.12	@	—

Domestic Rags (Old)

Price f. o. b. Boston

White No. 1	7.00	@	—
Repacked	8.50	@	—
Miscellaneous	6.00	@	—
White No. 2—			
Repacked	6.50	@	—
Miscellaneous	5.25	@	—
Thirds and Blues—			
Repacked	3.50	@	—
Miscellaneous	3.00	@	—
Roofing Stock—			
No. 1	1.90	@	—
No. 2	1.75	@	—
No. 3	1.50	@	—
No. 4	1.90	@	—

PHILADELPHIA

Paper

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.25
Fine, No. 3	.12	@	.20
Book, M. F.	.06¾	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.09½	@	—
Manila Sul., No. 1	.04½	@	.06
Manila No. 2	.04	@	.04½
No. 2 Kraft	.05¼	@	.05¾
No. 1 Kraft	.06¼	@	.06½
Common Bogus	.02¾	@	—
Straw Board	56.00	@	55.00
News Board	42.50	@	45.00
Chip Board	40.00	@	42.50
Wood Pulp Board (Carload Lots)	4.50	@	5.00
Binder Boards—			
Per ton	70.00	@	75.00
Carload lots	60.00	@	65.00
Tarred Felts—			
Regular	66.00	@	68.00
Slaters	70.00	@	72.00
Best Tarred, 1-ply (per roll)	1.85	@	1.95
Best Tarred, 2-ply (per roll)	1.55	@	1.70
Best Tarred, 3-ply	2.10	@	2.15
No. 1 Mixed Paper	.65	@	.70

Domestic Rags (New)

Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.13	@	.13¼
New White, No. 2	.09¼	@	.09½
Light Silesias	.08¾	@	.09
Silesias, No. 1	.10½	@	.11
Black Silesias (soft)	.04½	@	.05
New Unbleached	.13	@	.13½
Washable	.05¼	@	.05½
Fancy	.07	@	.07½
Cottons—according to grades—			
Blue Overall	.08¾	@	.09½
New Blue	.03¾	@	.04½
New Black Soft	.06	@	.06¾
New Light Seconds	.03½	@	.03¾
Khaki Cuttings	.06½	@	.07
Corduroy	.04¾	@	.04¾
New Canvas	.13	@	.13½
New Black Mixed	.05	@	.05½

Bagging

F. o. b. Phila.

Gunny, No. 1—			
Foreign	3.00	@	3.20
Domestic	3.00	@	3.25
Manila Rope	4.75	@	5.25
Sisal Rope	2.50	@	3.00
Mixed Rope	1.25	@	1.75
Scrap Burlaps	2.50	@	2.75
Wool Tares, heavy	2.00	@	2.13
Mixed Strings	1.75	@	2.00
No. 1, New Light Burlap	3.75	@	4.00
New Burlap Cuttings	3.25	@	3.75

Old Papers

F. o. b. Phila.

Shavings—			
No. 1 Hard White	3.50	@	3.60
No. 2 Hard White	3.00	@	3.25
No. 1 Soft White	2.60	@	2.70
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	1.00	@	1.10
Solid Ledger Stock	1.90	@	2.00
Writing Paper	1.65	@	1.70
No. 1 Books, heavy	1.00	@	1.10
No. 2 Books, light	.90	@	1.00
No. 1 New Manila	1.60	@	1.75
No. 1 Old Manila	1.60	@	1.75
Print Manila	1.10	@	1.25
Container Manila	.75	@	.80
Old Kraft	1.90	@	2.00
Common Paper	.50	@	.60
Straw Board, Chip	.60	@	.65
Binders Bd., Chip	.60	@	.65
Overissue News	.70	@	.80
Old Newspaper	.50	@	.60

Domestic Rags (Old)

White, No. 1—			
Repacked	6.25	@	6.50
Miscellaneous	5.00	@	5.50
White, No. 2—			
Repacked	.04½	@	.05
Miscellaneous	.03	@	.03½
Thirds and Blues—			
Repacked	2.75	@	3.00
Miscellaneous	2.00	@	2.25
Black Stockings	4.25	@	4.50
Roofing Stock—			
No. 1	1.85	@	1.95
No. 2	1.65	@	1.75
No. 3	1.50	@	1.60
No. 4	1.30	@	1.40
No. 5A	.90	@	1.00
B	.80	@	.90
C	.80	@	.90

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¾	@	—
Ledgers (sulphite)	—	@	.13
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09¼	@	—
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	4.00	@	—
Sheets (2 tons or over)	4.15	@	—
Book—			
No. 1 M. F. (carloads)	7.75	@	—
No. 2 M. F. (carloads)	7.50	@	—
No. 3 M. F. (carloads)	7.25	@	—
No. 1 S. C. (carloads)	8.25	@	—
No. 2 S. C. (carloads)	8.00	@	—
No. 3 S. C. (carloads)	7.75	@	—
No. 1 Coated and litho	14.50	@	—
No. 2 Coated and litho	13.50	@	—
No. 3 Coated and litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.85	@	—
White Rag	5.25	@	—
"B" Manila	5.65	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.20	@	—
M. G.	7.35	@	—

Pulp

(F. o. b. Mill)

Ground wood	30.00	@	32.00
Sulphite easy bleaching	65.00	@	67.50
Sulphite news grade	57.50	@	65.00
Sulphite, bleached	80.00	@	82.00
Sulphate	65.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	—
Soft White Book shavings	—	@	3.10
White Blk. News	1.70	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.25	@	—
Light and Crumpled Book Stock	1.10	@	—
Ledgers and Writings	1.40	@	—
Solid Ledgers	1.40	@	—
Manila—			
New Manila Cut	—	@	1.60
Printed Manilas	1.10	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.90	@	—
Folded News	.90	@	—
No. 1 Mixed papers	.65	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

	Per lb.		
No. 1 White Shirt Cuttings	.13	@	.13¼
No. 2 White Shirt Cuttings	.07¼	@	.07½
Fancy Shirt Cuttings	.08	@	.08¼

The CLEARING HOUSE of The Paper Industry

PAPER TRADE JOURNAL
10 East 39th Street New York, N. Y.
Telephone Caledonia 0760

"SITUATION WANTED" ADVERTISEMENTS.—4c a word, double rates for display (heavy face type). Minimum charge $1.00. If repeated ½ rate will be charged for each consecutive repetition.

"HELP WANTED" ADVERTISEMENTS—4c a word, double rates for display (heavy face type). Minimum charge $1.00.

CLASSIFIED ADVERTISEMENTS—4c a word, double rate for display (heavy face type). Minimum charge $1.00.
All classified, "Help Wanted" and "Situation Wanted" advertisements are payable in advance.

HELP WANTED

WANTED—Machine tender; back tender on Fourdrinier machine. Also beaterman. Address, Box 9140, care Paper Trade Journal. A-15

SUPERINTENDENT—Experienced on board. Capable and industrious. Know how to handle labor. Give full experience and state salary. Address, Box 9141, care Paper Trade Journal. A-29

WANTED—Night superintendent for new 50 ton sulphate pulp mill on Pacific Coast. In reply state full particulars regarding education and experience; also state age and salary expected. Address, Box 9142, care Paper Trade Journal. A-29

DRAFTSMAN—Experienced in design of paper mill equipment. Address, Employment Department, The Champion Coated Paper Co., Hamilton, Ohio. A-22

PULP MILL ENGINEER—A large pulp mill in Province of Quebec, Canada, requires the services of a number of experienced pulp or paper mill engineers for engineering office, including chief draughtsman, structural designer, designer familiar with boiler house and steam plant work, and mechanical designers. Apply giving full particulars regarding age, education, experience, married or single, and salary required, to Box 9124, care Paper Trade Journal. A-29

WANTED—Chief Engineer for board mill in middle west. Must be able to produce results and be good on maintenance. Prefer a man with paper mill experience. Give full particulars as to age, experience and references. Address, Box 9125, care Paper Trade Journal. M-6

SUPERINTENDENT to take charge of night shift manufacturing book and specialties. Position is permanent. Reply giving age, religion, experience, references and salary desired. Address, Box 9126, care Paper Trade Journal. A-22

PAPER SALESMAN—Experienced in selling groundwood specialty paper tonnage. Commission and drawing account. Real opportunity. Give full particulars including age, experience, and type of work. Reply will be considered confidential. Address, Box 9127, care Paper Trade Journal. A-15

WANTED—Beater engineer thoroughly experienced on light weight sulphite tissue. One machine mill. Good opportunity. Reply stating age, references, experience, salary, etc. Address, Box 9101. care Paper Trade Journal. A-15

WANTED NOW—At a small three cylinder board mill in Province of Quebec, Canada, an experienced strawboard maker as consulting superintendent for two to three months for making strawboard, straw .009 for corrugating and board generally. In answering say experience, references, monthly salary asked. Job shall be agreeable. Also would consider taking a young man who could make good in these lines and wishing to stay permanently—good future. Address, Box 9103, care Paper Trade Journal. A-15

WANTED—Master mechanic for new sulphate pulp and paper mill on Pacific coast. State age, experience and salary expected. None but first-class men need apply. Address, Box 9099, care Paper Trade Journal. A-22

HELP WANTED

WANTED—Superintendent for two machine tissue mill. Will pay excellent wages for the right man. Address, "CAPABLE," Box 9145, care Paper Trade Journal. A-29

WANTED—A beaterman for two machine mill in Delaware, making rag and wood book and specialties; three towers. Must be experienced in colors. Address, Box 9146, care Paper Trade Journal. M-6

WANTED—Beater foreman with expert color experience for large light weight specialty mill in Middle West. Give references and full details about yourself in first letter. Address, Box 9100, care Paper Trade Journal. A-15

FINISHING ROOM FOREMAN and Back Tenders wanted for tissue mill in Eastern Canada. Give detailed information as regards to married or single, age, and complete specification of experience. Only reliable and sober men with a steady record in the past need apply. Address, "Canadian Tissue Mill," Box 9088, care Paper Trade Journal. A-15

DRAFTSMAN-CIVIL ENGINEER: Familiar with design and construction of Pulp and Paper Mills. State age, experience and salary expected. Address, Box 9122, care Paper Trade Journal. A-22

BEATER ENGINEER—For large mill Pacific coast making bag, tissues, Kraft, fibre papers, news and specialties. In reply state fully experience, age, etc. Address, Box 9115, care Paper Trade Journal. A-15

WANTED—Two first-class experienced calender board machine tenders for Middle West. Write stating experience. Mill manufactures wall board. Address, Box 9118, care Paper Trade Journal. A-29

SUPERINTENDENTS, EXECUTIVES, ENGINEERS. $3,000-$25,000, find our individual confidential service effective in making new connections. Personally planned by Mr. Jacob Penn, the eminent employment authority, known to leading business men throughout America. Not agency. Jacob Penn, Incorporated, 305 Broadway, New York. tf

IF YOU are open to overtures for new connection and qualified for a salary between $2,500 and $25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service, of recognized standing and reputation, through which preliminaries are negotiated confidentially for positions of the calibre indicated. The procedure is individualized to each client's personal requirements; your identity covered and present position protected. Established sixteen years. Send only name and address for details. R. W. Bixby, Inc., 117 Downtown Building, Buffalo, New York. tf.

SITUATIONS WANTED

BOSS FINISHER—Thoroughly experienced and competent to take charge in any mill. Married, sober and steady. Understands managing help, also running cutters and calenders. References. Address, Box 9128, care Paper Trade Journal. A-29

SITUATIONS WANTED

EXPERIENCED MASTER MECHANIC—Very successful in handling men and keeping down maintenance costs, available for position in sulphate pulp or board mill, or the two combined. Excellent references. Address, Box 9129, care Paper Trade Journal. A-22

MAN, with 9 years' experience as a foreman in a chip-room, wants position. Address, Box 9130, care Paper Trade Journal. A-15

WANTED—Position as assistant superintendent, night or tour boss, by practical paper maker with twenty years' experience on many grades of paper; Kraft a specialty. Married and steady. A-1 references. Address, Box 9131, care Paper Trade Journal. A-29

SALESMAN desires to be permanently connected with reputable paper concern. Eighteen years' experience on news print, kraft and sulphite. Will travel if necessary. Address, Box 9123, care Paper Trade Journal. A-15

A KRAFT MAN, with twelve years' experience on one hundred per cent Kraft, also experienced on news, is open for position as assistant superintendent or night foreman. Am middle age, married, and strictly temperate. Can furnish A-1 reference. Address, Box 9107, care Paper Trade Journal. A-22

SUPERINTENDENT—With thorough knowledge in manufacture of tissues and Kraft, including conversion specialties. Offers his services where interest manifested will be appreciated. A-1 on colors. Address, Box 9067, care Paper Trade Journal. A-29

WANTED—Position as Mill Manager. Have had twenty-five years' experience, both on Fourdrinier and Cylinder machines. Have worked on all grades of paper, including Felt, in both mechanical and production. Have also handled Roofing Plant. Employed at present as plant manager. Can organize help and get results. Can furnish best of references as to character and production ability. Willing to take a mill any place. Address, Box 9109, care Paper Trade Journal. A-22

SITUATION WANTED—By A-1 paper maker on book and bonds as assistant superintendent, night superintendent; would consider a position as tour boss. 30 years old, married, best of references. Address, Box 9104, care Paper Trade Journal. A-22

GROUND WOOD SUPERINTENDENT desires change. 20 years of practical experience making all grades of pulp. Can get production and quality. Good references. Address, Box 9105, care Paper Trade Journal. A-22

A MAN OF LARGE EXPERIENCE as superintendent and manager of mills making crepe, toilet and towel papers, is desirous of making a change. Can come on short notice. Address, Box 9111, care Paper Trade Journal. A-29

WANTED—Position as manager or general superintendent. 15 years of practical experience manufacturing of all grades of tissue and converting of same. Kraft, burlap and rope papers. Now employed as superintendent. Very highly recommended. Address, Box 9048, care Paper Trade Journal. A-15

Imports of Paper and Paper Stock

(Continued from page 73)

Weil Bros., Conchatta, Manchester, 46 bls. rags.
M. Snedeker, Conchatta, Bristol, 44 bls. waste.
C. H. [illegible] Strasburg, 13 bls. rags.
Salomon Bros. & Co., Alexandria, 132 bls. rags.
New York Trust Co., Sinaia, Constantinople, 105 bls. bagging.
E. J. Keller Co., Inc., Sinaia, Constantinople, 171 bls. rags.
E. J. Keller Co., Inc., Geo. Washington, Bremen, 19 bls. bagging.
E. J. Keller Co., Inc., Geo. Washington, Bremen, 68 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 345 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 171 bls. bagging.
Atlas Waste Manfg. Co., Liberty, Havre, 52 bls. rags.
The Stone Bros. Co., Inc., Liberty, Havre, 89 bls. rags.
Castle & Overton, Inc., Liberty, Havre, 40 bls. rags.
D. M. Hicks, Liberty, Havre, 174 bls. rags.
V. Golaup, Liberty, Havre, 130 bls. rags.
Robert Blank, Liberty, Havre, 71 bls. rags.
J. J. Patricof, Liberty, Havre, 99 bls. bagging.
Sterling Mill Supply Co., Liberty, Havre, 102 bls. rags.
E. J. Keller Co., Inc., Liberty, Havre, 35 bls. rags.
Atterbury Bros., Inc., Liberty, Havre, 96 bls. bagging.
Leshner Paperstock Co., Liberty, Havre, 37 bls. rags.
P. Berlowitz, Liberty, Havre, 50 bls. rags.
Royal Manfg. Co., Liberty, Dunkirk, 10 bls. rags.
Royal Manfg. Co., Liberty, Dunkirk, 83 bls. cotton waste.
Darmstadt, Scott & Courtney, Liberty, Dunkirk, 45 bls. rags.
P. Berlowitz, Liberty, Dunkirk, 44 bls. rags.
Castle & Overton, Inc., Liberty, Dunkirk, 75 bls. rags.
Castle & Overton, Inc., Liberty, Dunkirk, 63 bls. bagging.
Chemical National Bank, Londonier, Antwerp, 94 bls. rags.
Bank of New York, Londonier, Antwerp, 119 bls. rags.
E. J. Keller Co., Inc., Londonier, Antwerp, 86 bls. bagging.
Anglo-South American Trust Co., Londonier, Antwerp, 127 bls. flax waste.
Salomon Bros. & Co., Berlin, Bremen, 78 bls. rags.
Salomon Bros. & Co., Fuji Maru, Port Said, 104 bls. rags.
Salomon Bros. & Co., Thuringia, Hamburg, 93 bls. bagging.
Salomon Bros. & Co., A. Ballin, Hamburg, 513 bls. rags.
Salomon Bros. & Co., Saugus, Alexandria, 96 bls. rags.
Salomon Bros. & Co., West Tacook, Hamburg, 69 bls. bagging.
Salomon Bros. & Co., Storm King, Marseilles, 300 bls. rags.

OLD ROPE

Brown Bros. & Co., Deutschland, Hamburg, 5 bls.
The Stone Bros. Co., Inc., Chickasaw, Hull, 230 coils.
Brown Bros. & Co., Marengo, Hull, 250 coils.
Brown Bros. & Co., Vardulia, London, 112 coils.
M. Maier Paper Mill Supply Co., Andyk, Rotterdam, 115 coils.
Brown Bros. & Co., Andyk, Rotterdam, 164 coils.
International Purchasing Co., Andyk, Rotterdam, 377 coils.
W. Schall & Co., Bankdale, Barcelona, 43 coils.
Brown Bros. & Co., Stockholm, Gothenburg, 42 coils.
Brown Bros. & Co., Londonier, Antwerp, 100 coils.
The Stone Bros. Co., Inc., Londonier, Antwerp, 52 coils.

ROPE WASTE

N. E. Berzen, Skaneland, Barcelona, 42 bls.

MANILA ROPE

Ellermans' Wilson Line, Minnewaska, London, 231 coils.
Manufacturers Trust Co., Pres. Garfield, Manila, 150 pgs.

WOOD PULP

A. P. W. Paper Co., Laly, Sheet Harbor, bulk wood pulp, 1300 tons.
Buck, Kiser & Co., Inc., Varde, Bremen, 1600 bls. sulphite pulp (sulphite).
Buck, Kiser & Co., Inc., Hellig Olav, Oslo, 600 bls. sulphite pulp.
Bulkley, Dunton & Co., Andyk, Rotterdam, 1132 bls. wood pulp.
J. Anderson & Co., Stockholm, Gothenburg, 250 bls. sulphite pulp.
Scandinavian Pulp Agency, Inc., Stockholm, Gothenburg, 1324 bls. kraft pulp.
Bulkley, Dunton & Co., Stockholm, Gothenburg, 500 bls. sulphite pulp.
F. M. Sergeant & Co., Stockholm, Gothenburg, 943 bls. sulphite pulp.
F. M. Sergeant & Co., Stockholm, Gothenburg, 500 bls. dry soda pulp.
Johansson, Wales & Sparre, Inc., Stockholm, Gothenburg, 139 bls. dry soda pulp.
Price & Pierce, Ltd., Stockholm, Gothenburg, 1000 rolls wet pulp.
J. Anderson & Co., Norefjord, Sarpsborg, 2802 bls. sulphite pulp, 474 tons.
Castle & Overton, Inc., Ala, Rotterdam, 140 bls. wood pulp, 28 tons.

WOOD PULP BOARDS

Lagerloef Trading Co., Bird City, Hango, 98 bls.
Wilkinson Bros. & Co., Inc., Stockholm, Gothenburg, 10 rolls.

WOOD FLOUR

The Hansa Co., Ala, Rotterdam, 500 bags, 25,375 kilos.
The Bakelite Co., Ala, Rotterdam, 668 bags, 51,200 kilos.

CASEIN

National City Bank, Leighton, Buenos Aires, 421 bags.

NEWPORT NEWS IMPORTS

WEEK ENDING APRIL 10, 1926

Castle & Overton, Inc., Aquarius, Germany, 119 bls. rags.
Castle & Overton, Inc., Ostende, Belgium, 740 bls. rags.
Castle & Overton, Inc., City of Weatherford, Germany, 68 bls. bagging.
Castle & Overton, Inc., Ostende, France, 112 bls. rags.
E. J. Keller Co., Inc., Youngstown, Hamburg, 62 bls. bagging.
E. J. Keller Co., Inc., Leerdam, Rotterdam, 75 bls. bagging.

NORFOLK IMPORTS

WEEK ENDING APRIL 10, 1926

Parsons & Whittemore, Inc., Bird City, Hango, 494 rolls news print.
Parsons & Whittemore, Inc., Bird City, Hango, 181 bls. news print.
American Paper Co., Bird City, Hango, 90 rolls news print.
American Paper Co., Bird City, Hango, 18 bls. news print.
Old Dominion Paper Co., Bird City, Hango, 49 cs. printing paper.
Lagerloef Trading Co., Bird City, Hango, 1080 bls. wood pulp boards.
Castle & Overton, Inc., Westerner, Rotterdam, 423 bls. wood pulp.

PORTLAND, ME., IMPORTS

WEEK ENDING APRIL 10, 1926

Waterfall Paper Co., Norefjord, Hafslund, 4948 bls. sulphite pulp, 794 tons.

PHILADELPHIA IMPORTS

WEEK ENDING APRIL 10, 1926

E. J. Keller Co., Inc., Indep. Hall, Bordeaux, 272 bls. rags.
The Stone Bros. Co., Inc., Indep. Hall, St. Nazaire, 745 bls. rags.
Katzenstein & Keene, Inc., Indep. Hall, St. Nazaire, 260 bls. rags.
E. J. Keller Co., Inc., Indep. Hall, Havre, 229 bls. rags.
Robert Blank, Skaneland, Marseilles, 624 bls. rags.
S. Birkenstein Sons, Skaneland, Marseilles, 71 coils old rope.
S. Birkenstein Sons, Skaneland, Marseilles, 14 bls. rags.
E. J. Keller Co., Inc., Skaneland, Barcelona, 162 bls. rags.
Stephano Bros., Liberty, Havre, 30 cs. cigarette paper.
Penn Rag & Metal Co., Liberty, Havre, 42 bls. rags.
Philadelphia National Bank, Liberty, Havre, 93 bls. rags.
A. W. Fenton, Inc., Liberty, Havre, 118 bls. rags.
Leshner Paperstock Co., Liberty, Havre, 140 bls. rags.
D. I. Murphy, Liberty, Havre, 106 bls. rags.
D. I. Murphy, Liberty, Havre, 86 bls. bagging.
S. Birkenstein Sons, Liberty, Havre, 94 bls. rags.
S. Birkenstein Sons, Liberty, Dunkirk, 189 bls. rags.
S. Birkenstein Sons, Liberty, Dunkirk, 20 bls. bagging.
D. I. Murphy, Liberty, Dunkirk, 276 bls. rags.
A. W. Fenton, Inc., Liberty, Dunkirk, 51 bls. rags.
E. Butterworth & Co., Inc., Liberty, Dunkirk, 114 bls. flax waste.
Salomon Bros. & Co., Liberty, Dunkirk, 121 bls. rags.
E. J. Keller Co., Inc., American, Shanghai, 200 bls. rags.
E. J. Keller Co., Inc., City of St. Joseph, Genoa, 75 bls. rags.
E. J. Keller Co., Inc., West Campgaw, Hamburg, 288 bls. rags.
Castle & Overton, Inc., Germany, 221 bls. rags.
Castle & Overton, Inc., ———, Antwerp, 1778 bls. wood pulp.
Castle & Overton, Inc., Western Plains, Antwerp, 337 bls. rags.
Castle & Overton, Inc., Oregon Maru, Germany, 115 bls. rags.
Castle & Overton, Inc., London Exchange, London, 6 bls. old rope.
Castle & Overton, Inc., London Exchange, London, 59 bls. paper stock.
Castle & Overton, Inc., London Exchange, London, 202 bls. rags.
Castle & Overton, Inc., Holstein, Germany, 32 bls. rags.
Castle & Overton, Inc., Hektor, Spain, 100 bls. rags.
Robert Blank, West Campgaw, Hamburg, 64 bls. rags.
Robert Blank, Western Plains, Rotterdam, 130 bls. rags.
Salomon Bros. & Co., West Campgaw, Hamburg, 172 bls. rags.
Salomon Bros. & Co., Westpool, Hamburg, 169 bls. rags.
Salomon Bros. & Co., Gottingen, Bremen, 146 bls. rags.
Salomon Bros. & Co., Levinza, Alexandria, 140 bls. rags.
Salomon Bros. & Co., Braga, Alexandria, 340 bls. rags.

BOSTON IMPORTS

WEEK ENDING APRIL 10, 1926

Lagerloef Trading Co., Bird City, Hango, 167 bls. wood pulp boards.
Parsons & Whittemore, Inc., Bird City, Hango, 238 rolls news print.
Equitable Trust Co., Natirar, Gothenburg, 4122 bls. sulphate pulp.
Robert Blank, West Celina, Hamburg, 130 bls. rags.
Robert Blank, Sac City, Rotterdam, 300 bls. rags.
Castle & Overton, Inc., Sac City, Antwerp, 1234 bls. wood pulp.
E. J. Keller Co., Inc., Ala, Rotterdam, 46 bls. rags.
Salomon Bros. & Co., West Celina, Bremen, 77 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING APRIL 10, 1926

W. H. Masson, Conehatta, Belfast, 125 bls. rags.
Castle & Overton, Inc., Maryland, Belgium, 2848 bls. wood pulp.
Castle & Overton, Inc., Westerner, Rotterdam, 1921 bls. wood pulp.
E. J. Keller Co., Inc., Maryland, Karlsruhe, 1575 bls. wood pulp.
E. J. Keller Co., Inc., Crefeld, Bremen, 415 bls. rags.
E. J. Keller Co., Inc., Crefeld, Bremen, 119 bls. bagging.

JAMES W. SEWALL
Consulting Forester
OLD TOWN MAINE
Largest Cruising House in America

FREDERICK L. SMITH
21 EAST 40TH STREET, NEW YORK
PULP AND PAPER MILL ENGINEER

Don't Guess at Important Matters
BOWSHER'S SPEED or MOTION INDICATOR is indispensable
in obtaining a UNIFORM speed of machinery, and is one of the most PROFITABLE little devices ever put in a mill. Will pay for itself in 30 days. Dial 12 in. in diameter. Weight, 10 lbs.
The N. P. BOWSHER CO., South Bend, Ind.

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Engineering Service for Paper Mills
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Digester, Acid Proof and other Guaranteed Linings
Chemical Pulp Mill Engineers

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Board Mill Production Service
Standardized Furnishes and Costs
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A New Service based on twenty-five years' Practical Experience

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Codes: ABC 5th Western Union

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PAPER: Microscopical, physical and chemical tests. Complete laboratories. Constant standard conditions.
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Approved chemists to American Paper and Pulp Association and American Association of Woodpulp Importers

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PACKERS OF ALL GRADES OF
WASTE PAPER
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GREEN BAY, WISCONSIN
ELIMINATION OF WASTE
REPORTS AND VALUATIONS
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REDUCTION OF COSTS
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"An Engineering Service Based Upon Actual Operating Experience"

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Manufactured and sold by
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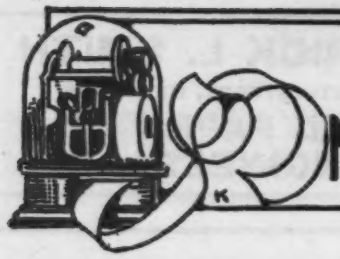
Consulting Chemical Engineer
Broad Street Bank Building Trenton, N. J.
SPECIAL FIBRE PRODUCTS AND PROCESSES
HOMOGENEOUS BOARDS,
WATERPROOFING COMPOSITIONS
FORMING AND DRYING MACHINES
UTILIZATION OF WASTE FIBRES
PURIFICATION OF EFFLUENTS



LATEST MARKET REVIEW

New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, April 14, 1926.

The local paper market continues to exhibit a strong tendency and the demand for the various grades of paper is quite satisfactory. Prices are holding up very well and there have been no rumors around of any unusual concessions being made. Sales organizations of the leading paper houses are generally satisfied with the volume of business being transacted and it appears evident that so far this year the paper business has been more prosperous than in the corresponding period of last year.

Demand for news print is persistent. Considerable spot business has been recorded, while contract withdrawals have been very heavy. According to the News Print Service Bureau, production in the United States and Canada reached 303,003 tons in March, a record figure. The United States output was 12 per cent greater in the first quarter of the year than in the first three months of 1925, while the Canadian output was 18 per cent greater. At the end of March stocks of news print at United States mills totalled 18,352 tons and at Canadian mills, 14,800 tons.

The various grades of paper boards continue in good request although prices are slightly weaker. A fairly good volume of inquiries are being received for future business. All grades of fine paper are in strong demand at formerly quoted prices. Sales of coarse paper and are being well maintained and prices show no signs of weakening.

Mechanical Pulp

Firmness continues to prevail in the ground wood market and prices of both domestic and foreign mechanical pulp remain steady. Although production is increasing somewhat now that the weather conditions are becoming more favorable, spot offerings are still limited. Scandinavian ground wood is quoted at from $40 to $45 a ton, ex dock, and domestic and Canadian mechanical pulp is selling at from $30 to $33 a ton, at pulp mill.

Chemical Pulp

Conditions in the chemical pulp market are practically unchanged and with both foreign and domestic mills sold well ahead, prices remain very firm. The Swedish output for next year appears to be in good request and European consumers in particular are evincing great interest in this product. Foreign kraft is still steady at from 3.25 to 3.50, ex dock, Atlantic ports, while American kraft is selling at from 3.00 to 3.50, at pulp mill.

Old Rope and Bagging

Domestic old rope has been fairly active at recently quoted prices. Foreign old rope remains quiet with offerings sufficient to take care of the present smal lrequirements. The demand for bagging has slightly improved and prices are being maintained fairly well.

Rags

The paper mills are beginning to display a little more interest in the rag market. Old domestic rags are in good demand at firm prices while the request for new domestic rags also shows signs of improving. Roofing rags are in moderate demand at nominal prices. No change has been noticed in the foreign rag situation and high prices continue to be quoted abroad.

Waste Paper

Low grades of waste paper are in demand from the board mills and prices, as a whole, rule steady. The paper mills do not appear to be showing much interest at present in the higher grades of waste paper although prices are felt ot eb reasonable for the time of the year. Ledgers and writings are generally quiet and unaltered. White news cuttings, however, are in fairly good request.

Twine

The twine market has become somewhat quieter and the bulk of the business being transacted is mostly along routine lines. Prices are holding up very well so far, however, and observers of the market are mostly optimistic regarding the future prospects of the industry.

Lewmar Paper Co. Leases New Quarters

[FROM OUR REGULAR CORRESPONDENT]

NEWARK, N. J., April 12, 1926.—The Lewmar Paper Company, now located at 72 Clinton street, wholesale distributors of printing paper, has just leased, through the offices of Feist & Feist, Inc., the lower portion of the building at 72-76 Mechanic street, between Lawrence and Mulberry streets, for a long term of years. The lease was made for Leopold Meyer, owner of the building and former head of the American Undergarment Company. The Lewmar Paper Company, when improvements have been completed, will occupy space approximating about 12,000 square feet. The lease also carried with it an option for an additional term, as well as an option to purchase the property.

Standards for Tissue Paper

Members of the Tissue Paper Manufacturers Association and the National Paper Trade Association are sending out with their mail a little pamphlet entitled "Standards for Tissue Paper." These standards were adopted by the National Paper Trade Association and the Tissue Paper Manufacturers Association, March 31, 1926.

It is understood from Washington that 80 per cent of the industry have signed up on the acceptance of these standards and the thing is proving a big success. The paper merchants are very much inclined to buy goods that bear the association seal or label, because they know that the association stands back of these goods as to standard size and count.

Connecticut Valley Superintendents to Meet

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., April 12, 1926.—The Connecticut Valley Division of the American Pulp and Paper Mill Superintendents Association will meet April 24-26 at the Hotel Garde, New Haven, Conn.

The Bird Machinery Company will have charge of the meeting. This meeting will be open to all who wish to attend. Acceptance should be sent to Silas Weiser, National Folding Box Company, New Haven, Conn., not later than April 22. Registration will start at 11:30 a. m. Meeting at 2 p. m., with banquet at 7 p. m.

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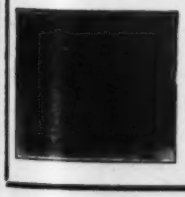

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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, April 14, 1926.

During the past week, trading in the local chemical market was mostly along routine lines. Regular contract deliveries have been moving at a good pace and the manufacturers appear to be satisfied with the present position of the industry. While some concessions have been made on desirable contract business, according to reports from reliable quarters, prices are generally holding well up to schedule.

BLANC-FIXE.—Demand for both the pulp and powder is fairly persistent, especially for prompt shipment. The pulp is still selling at from $53 to $55 per ton. The powder is quoted at from 3¼ to 4½ cents a pound, in barrels, at works.

BLEACHING POWDER.—The bleaching powder market is in a steady position and production is not in excess of requirements. Manufacturers are said to be well sold ahead on contract and prices are being well maintained. Bleaching powder is quoted at from $2 to $2.40 per 100 pounds, in large drums, at works.

CAUSTIC SODA.—Contract withdrawals of caustic soda are being maintained in a satisfactory manner. The market is fairly steady although there are persistent reports of shading. Quotations on caustic soda range from $3.10 to $3.15 per 100 pounds, at works. Spot car lots are quoted at from $3.20 to $3.25 per 100 pounds.

CASEIN.—Both imported and domestic casein are in good demand. Spot offerings are somewhat limited and prices are very firm. Imported casein is now selling at 17 cents a pound and domestic at from 15 to 17 cents, all in bags.

CHINA CLAY.—The china clay market is practically unchanged. The spot demand is quiet at present and contract withdrawals are moving in moderate volume. Imported china clay is quoted at from $13 to $22 a ton, ship side. Domestic washed clay is selling at $8 a ton, at mine, and pulverized at $10 a ton.

CHLORINE.—No radical changes have taken place in the chlorine market. Shipments on contract are proceeding in good volume and prices are being well maintained. Chlorine is still quoted at 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders. The spot quotation is half a cent higher.

ROSIN.—The demand for rosin is mostly confined to immediate or nearby requirements. Prices remain as previously quoted. At the naval stores, the grades of rosin used in the paper mills are offered at from $11.10 to $13.50 per 280 pounds, ship side, in barrels.

SALT CAKE.—The condition of the salt cake market is satisfactory. Shipments on contract are moving at a good rate and prices are holding up very well. Stocks are about sufficient to meet the prevailing request. Salt cake continues to sell at from $17 to $20 a ton, in bulk, at works.

SODA ASH.—The soda ash market is steady in tone and prices are being well maintained. Contract withdrawals are proceeding on a large scale and plants are operating at near capacity to cope with the demand. Contract quotations, in car lots, at works, per 100 pounds, range as follows: In bulk, $1.25; in bags, $1.38, and in barrels, $1.63.

STARCH.—Demand for starch is persistent and prices remain steady and unaltered. The position of the market is firmer, due to the strength of the raw material. Special paper maker's starch is still selling at $3.32 per 100 pounds, in bags, and $3.49 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The sulphate of alumina market is rather quiet at present, although contract withdrawals are moving in fairly good volume. Prices remain unchanged from formerly quoted levels. Sulphate of alumnia is still selling at from $2 to $2.05 per 100 pounds, for the iron free, in bags, at works, and at from $1.40 to $1.45 for the commercial grades.

SULPHUR.—The demand for sulphur continues strong. Shipments against contract are satisfactory for the season of the year and prices are very firm. The quotation on the grade of sulphur used by the paper mills ranges from $14 to $15 a ton, in bulk, at mine, and at from $20 to $21 a ton, ship side.

TALC.—The talc market continues to exhibit a strong tendency. The demand for this product is steady and contract withdrawals are moving at an excellent pace. American talc is quoted at $16 to $18 a ton, at eastern mines, and at from $17 to $25 a ton at Western mines. French talc is selling at from $18 to $22 a ton.

Franklin's Paper Industry Reviving

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, April 12, 1926.—Franklin will witness a real revival in the paper trade judging from present indications. A short time ago the Superior Paper Company's plant on Oxford Road, just across the Miami river, from the central section of town, was sold at receiver's sale for $90,100, the appraised value being approximately $120,000.

At the time of the sale, it was not known what plans would be followed. George Williams, of Cincinnati, was the bidder on the plant and it was turned over to him.

For several years the Superior Paper Company, devoted its manufacture exclusively to tissues and the equipment for this product is said to have been complete.

It was variously reported that the mills would resume on the manufacture of tissue or the factory would be turned into another line entirely. The building, a substantial brick structure, once was devoted to the making of wheels.

The Superior mill owners, as was announced last week, have transferred the plant to the Philip Carey Roofing Company, of Lockland, which will manufacture asbestos pipe covering and a heavy grade of wrapping paper for wrapping rolls of roofing paper.

The Philip Carey Company, which is one of the largest manufacturers of roofing material in the country, and consequently a major Miami Valley industry, will begin remodeling operations at once.

For many years the Logan & Long Company, of Franklin, has manufactured roofing materials. It conducts a large plant on the Dixie Highway, at the Southern end of Franklin. A branch of the industry also is located in Atlanta, Ga.

The Logan & Long Company is just completing repairs to its stills which were destroyed by fire several weeks ago. The asphalt vats are located in a brick and frame building separate from the main mill or the fire loss would have been much heavier.

The mill force joined the Franklin department in battling the blaze which involved the entire department and which continued for several hours.

Fortunately the company was enabled to rebuild without delay and the general operation of the company was not suspended.

Draft Waxed Paper Questionnaire

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., April 14, 1926.—It is understood that the waxed paper manufacturers have drafted a tentative questionnaire which is to be discussed by the manufacturers and also to be taken up with the officials of the Simplified Practice Division of the Department of Commerce, in connection with the simplification program in that industry.

NEWS PRINT IN ALASKA

(*Continued from page 40*)

ment of its resources is not subject to the vagaries of a Canadian parliament and even should our Congress get enacting things in reverse, they generally listen to the protests of industry and capital before much harm is done. There surely can be no sounder form of investment (Canada not excepted) than that of the development of the news print industry in Alaska, in the writer's estimation, and it will not be ten years hence, as some eastern financiers would have it, in order that they might first get a return from their stupendous Canadian investments, but is imminent